



BIG DATA VALUE cPPP

ANNEX 4 to the Monitoring Report 2018

Collaborations, mobilisation of stakeholders, outreach,
and success stories

Version 1. July 2019



BDV BIG DATA VALUE
ASSOCIATION

ABOUT THIS DOCUMENT

This document is part of the Big Data Value contractual Public-Private Partnership (BDV cPPP) Monitoring report 2018 and complements the information provided in the main report and Annex 1 to the main report.

Annex 4 of the Monitoring report 2018 provides **further details on results reported on section 2.2** of the main report and in particular **the collaborations with other international initiatives and other PPPs** (section 1); **collaboration with national initiatives** (section 2); **communication, dissemination and other engagement activities** during 2018 (section 3), and **success stories** of the PPP (section 4). Section 5 and 6 include more detailed reports of the 2 major events of the PPP: the Big Data Value PP Meetup (section 5) and the European Big Data Value Forum 2018 (section 6).

Version control:

Version 1.0 (July 2019) Annex 4 to the first official version of the Big Data Value cPPP Annual Monitoring Report 2018.

TABLE OF CONTENTS

ABOUT THIS DOCUMENT	2
TABLE OF CONTENTS	3
1 COLLABORATIONS WITH OTHER INTERNATIONAL INITIATIVES - PPPS	4
1.1 Collaboration with euRobotics and joint efforts towards a future European AI-Data-Robotics PPP	5
1.2 Collaboration with ETP4HPC and joint efforts in the EuroHPC Joint Undertaking	7
1.3 Collaboration with AIOTI	8
1.4 Collaboration with EFFRA	10
1.5 Collaboration with ECSO	11
1.6 Collaboration with other International Research and Innovation communities and PPPs	12
1.7 BDVA cooperation with DatSci and AI Awards	13
1.8 Input from the PPP running projects in 2018	13
1.9 Input from the BDVA members	14
2 COLLABORATION WITH NATIONAL INITIATIVES	14
2.1 Input from the PPP running projects in 2018	14
2.2 BDVA, BDVe projects and BDVA members	15
3 DISSEMINATION AND COMMUNICATION ACTIVITIES	17
3.1 Websites (programme level only)	22
3.2 Events	22
3.3 Social media	44
3.4 Newsletters	44
4 SUCCESS STORIES	45
4.1 Success stories from PPP projects	45
4.2 Value created for participation in the Big Data Value Programme	64
4.3 Success stories from BDVA Members	67
5 BDV PPP MEET-UP SOFIA 2018	69
6 EUROPEAN BIG DATA VALUE FORUM 2018 (EBDVF 2018)	78

1 COLLABORATIONS WITH OTHER INTERNATIONAL INITIATIVES - PPPS

The BDV SRIA (version 4) highlights the importance of building collaborations with other organisations as a crucial aspect to develop the European Big Data Value ecosystem, and to create impact not only at Research and Innovation level but also in Standards, regulations Markets and Society. Collaborations with other PPPs, European and international standardisation bodies, industrial technology platforms, data-driven research and innovation initiatives, user organisations and policy makers have been identified and developed at national, European and international levels since the launch of the PPP and the creation of the Association (linked to SRIA v1), influencing the level of maturity of these collaborations.

This annex provides some further details in the activities performed during 2018, some of those materialised in very specific outcomes during 2019 and therefore also described. This section covers in particular collaborations with the euRobotics Association, the ETP4HPC (European Technology Platform for HPC), AIOTI (for IoT), ECSO (for cybersecurity), European Factories of the Future Research Association (EFFRA) and other PPPs and technology platforms. It also includes collaborations with other International organisations, such as the MoU between BDVA and the DatSci and AI awards. Collaboration with Standard bodies and related organisations are described in annex 2 (as specific KPI for the PPP).

In developing the ecosystem and in building collaborations with other initiatives, both the Association and the CSA BDVe project play an important role and collaborate closely in this topic. The BDVA members also play a fundamental role in those collaborations with both international and national initiatives. Finally, ongoing projects further enriched the ecosystem by the collaboration established with sectorial user and data communities (verticals), such as those developed by the Lighthouse projects (on bio-economy and mobility, transport and logistics) and the application domains under BDVA Task Force 7 (Health, Media, Energy, Smart Cities, Geospatial Issues, Finances, Smart Manufacturing, etc)¹.

Figure 1 shows the map of main collaborations as developed by BDVA² for the BDV PPP.

¹ Further details about contributions from TF7 provided in annex 6.

² As per April 2018.

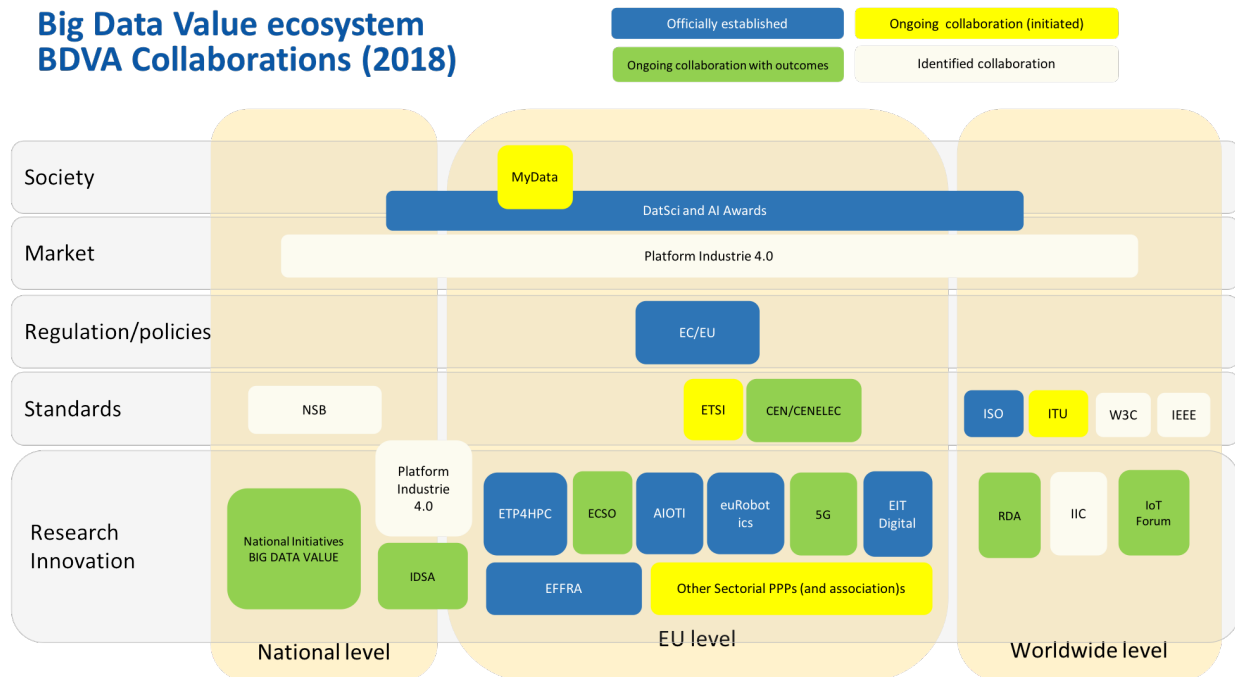


Figure 1: Map of collaborations BDVA / BDV cPPP

1.1 Collaboration with euRobotics and joint efforts towards a future European AI-Data-Robotics PPP

Both euRobotics and BDVA are engaged in a contractual Public Private Partnership (cPPP) with the European Commission governed by separate Contractual Arrangements with the following objectives:

- The SPARC PPP, to which euRobotics is a party, focuses on the development and deployment of robotics technology and applications across all industrial and service sectors. It seeks to enhance competitiveness, productivity and sustainability through stimulation of innovation and research by engaging directly with all stakeholders along the innovation chain and by supporting the operation of a European eco-system focused on robotics.
- The BDV PPP programme, to which BDVA is a party, focuses on the development of technology and of vertical industry-specific applications, as well as on the construction of an innovation ecosystem supporting the growth of the European big data value economy.

On April 25th 2018, the European Commission outlined a European Strategy for AI to boost investment and set ethical guidelines. In its communication, the European Commission put forward a European approach to Artificial Intelligence based on three pillars: “Boosting financial support and encouraging uptake by public and private sectors”, “Preparing for socio-economic changes brought about by AI”, and “Ensuring an appropriate ethical and legal framework”. The EC created the so-called High-Level Expert Group on AI (HLEG AI) and the European AI Alliance. Additionally on 10th April 2018, 25 European countries signed a Declaration of cooperation on Artificial Intelligence.

Both euRobotics and BDVA recognised that each association had existing members and Strategic Research and Innovation objectives that focused on AI and recognised that AI was a key component in the future direction of each association and already provided input and align their roadmaps towards a European AI strategy and programme and cooperate with the European Commission in this matter.

On September 19th 2018 BDVA, euRobotics and the European Commission organised a Data4AI workshop focused on identifying the main challenges ahead to develop the so-called European Data Space, essential for the development of AI, and to identify potential paths for the future, building on current European, cross-border, national and private initiatives.

Last November 2018 (in the context of EBDVF 2018) BDVA released a Position paper called: “Data-driven Artificial Intelligence for European Economic Competitiveness and Societal Progress”³, outlining already as first recommendation to Set-up a European Public-Private-Partnership on AI (Partnership) leveraging existing industrial and research communities and build upon results of the Big Data Value PPP and the SPARC PPP.

At the ICT conference in Vienna on 5 December 2018, the Big Data Value Association and the euRobotics Association signed a Memorandum of Understanding with the goal of increasing collaboration to boost AI progress in Europe. In the MoU both associations expressed their intentions to cooperate more intensively in the future on areas of mutual benefit including the area of Artificial Intelligence. In particular the MoU states that both associations intended to develop activities:

- **Contributing to the European Digital Agenda** by joining forces in developing strategic roadmaps, and position papers.
- **Work together**, and in collaboration with the European Commission and the Member States, **towards a European Partnership on AI** (a PPP on AI) leveraging existing Industrial and research communities and building upon results of both the Big Data Value PPP and SPARC PPP.
- **Supporting the two above mentioned points to collaborate in enabling** pilots, standards and demonstrators, projects and other joint activities in order to accelerate the use, integration and value creation of Big Data, Robotics and AI technologies in different industrial and service sectors and society at large.
- **Work jointly on** the identification of **migration pathways** from today’s state of the art towards maximising benefit of relevant AI technologies in industrial and service sectors where the associations jointly operate.
- **Exchanging best practice and approaches from existing and future projects** of the Big Data PPP and the SPARC PPP. Jointly support, in collaboration with the European Commission, the **organisation of events** focused on Artificial Intelligence and other areas of mutual benefit.

On December 7th 2018 the European Commission presented a coordinated plan prepared with Members States to foster the development and use of AI in Europe⁴. The plan, that delivered on the European AI Strategy adopted last April 2018, proposed joint actions in four areas: increasing investment, making more data available, fostering talent and ensuring trust. The coordinated plan provides a strategic framework for national AI strategies. In particular the plan proposes:

- Towards a European AI public-private partnership and more financing for start-ups and innovative SMEs
- Strengthening excellence in trustworthy AI technologies and broad diffusion
- Adapting our learning and training programmes and systems to better prepare our society for AI (Skills)
- Building up the European data space
- Develop ethical and trustworthy AI
- Security-related aspects of AI applications and infrastructure, and international security agenda

As part of the AI coordinated plan, BDVA and euRobotics get the mandate from the European Commission to develop a new partnership. During 2019, BDVA and euRobotics have worked together to develop **first** a “Joint

³ <http://bdva.eu/sites/default/files/AI-Position-Statement-BDVA-Final-12112018.pdf>

⁴ http://europa.eu/rapid/press-release_IP-18-6689_en.htm

Vision Paper for an Artificial Intelligence Public Private Partnership (AI PPP)⁵ (March 2019) (with the commitment from both Associations to shape and develop the Strategic Research and Innovation Agenda for Europe, to set up an AI PPP and to make this partnership a common focal point that coordinates support for AI research, stimulates innovation and mobilises public and private funding for AI), and **second** the Consultation Version of their joint “Strategic Research, Innovation and Deployment Agenda (SRIDA) strategy: A focal point for collaboration on Artificial Intelligence, Data and Robotics”⁶. The objective of the Consultation Release SRIDA was to bring together the stakeholders from the European AI Innovation Ecosystem to achieve a consensus on the way forward in advancing AI in Europe developing strong foundations for a European Public-Private Partnership on AI. BDVA and euRobotics officially presented this joint strategy during an event organised on June 6th in Brussels. The event called “Joining Forces to Boost AI adoption in Europe” attracted a good mix of representatives from the European Commission, EU member states and regions, as well as from industry and research.

To achieve this, BDVA and euRobotics have organised the following workshops (already in 2019):

- BDVA workshop on February 27th (BDVA members and BDV PPP projects)
- Joint workshop on March 20th in Bucharest (public at ERF2019): **“Big Data Value PPP and euRoboticsPPP: Towards a common Vision for AI adoption in Europe”**
- euRobotics workshop on April 11th in Brussels (with BDVA participation)
- BDVA workshop on April 30th in Brussels (with euRobotics participation)
- euRobotics workshop on May 8th in Brussels (with BDVA participation)
- BDVA workshop on May 16th in Brussels (with euRobotics participation)

1.2 Collaboration with ETP4HPC and joint efforts in the EuroHPC Joint Undertaking

ETP4HPC is the European Technology Platform (ETP) in the area of High-Performance Computing (HPC). It is an industry-led think-tank comprising of European HPC technology stakeholders: technology suppliers, research centres as well as Independent Software Vendors and HPC industrial and academic end-users (as of November 2018, ETP4HPC has 93 members, out of which 45 are companies from the private sector /34 are SMEs/).

BDVA and ETP4HPC established collaboration back in 2016 with a very intensive common agenda during 2017⁷ that consolidated in 2018 with many additional activities and the signature of an official MoU at the end of the year.

BDVA and ETP4HPC published in 2018 a **joint paper called “The technology stacks of HPC and Big Data computing”**⁸, discussing current strengths and differences between the (software and hardware) stacks of BDC and HPC, and how the current strengths of one stack may address a shortcoming/need in the other stack. As some Big Data Computing (BDC) workloads are increasing in computational intensity (traditionally an HPC trait) and some High Performance Computing (HPC) workloads are stepping up data intensity (traditionally a BDC trait), there is a clear trend towards innovative approaches that will create significant value by adopting certain techniques of the other.

5 <http://bdva.eu/sites/default/files/VISION%20AI-PPP%20euRobotics-BDVA-Final.pdf>

6 <http://bdva.eu/sites/default/files/AI%20PPP%20SRIDA-Consultation%20Version-June%202019%20-%20Online%20version.pdf>

7 Look at BDV PPP Monitoring report 2017.

8 http://www.bdva.eu/sites/default/files/bigdata_and_hpc_FINAL_16Nov18.pdf

At the ICT conference in Vienna on 6 December 2018, the Big Data Value Association and the European Technology Platform for High Performance Computing (ETP4HPC) signed a Memorandum of Understanding.

This MoU expresses the intention of ETP4HPC and BDVA to strengthen collaboration in the areas of Technology roadmap interaction, development of HPC usage for extreme data exploitation, and the democratisation of HPC for data intensive applications. ETP4HPC and BDVA are interested in helping the ETP4HPC Partners and BDVA members to realise the benefits expected from the BDV PPP, HPC cPPP, and now EuroHPC JU programmes and to more efficiently exploit its results.

The scope of this collaboration includes:

- **Shaping the European Agenda** – joining forces and resources in developing strategic roadmaps, positions papers, pilots and other joint activities in order to ensure a seamless integration of HPC and Big Data Value / Artificial Intelligence (AI) technologies
- Innovation ecosystem creation and **development – combining ETP4HPC and BDVA assets towards establishing** and growing an EU-wide ecosystem of Big Data Value, Artificial Intelligence, and HPC researchers, developers, innovators and entrepreneurs.
- Common organisation of **events**.

Additionally, on September 28, 2018, the Council of Ministers officially backed the Commission's plans to invest jointly with the Member States in building a world-class European supercomputing infrastructure. The Competitiveness Council adopted a Regulation to establish the **European High Performance Computing (EuroHPC) Joint Undertaking** – a new legal and funding structure, which will pool resources from 25 European countries, build supercomputing and data infrastructure, and support research and innovation in the field involving scientists, businesses and industry. This structure will give European public and private users better access to supercomputing which is essential to support competitiveness and innovation⁹.

BDVA, representing the European Big Data Community, was one of the private members together with ETP4HPC invited to join this new Public-Private partnership.

The BDVA confirmed its participation as private member of the EuroHPC Joint Undertaking in November 2018. BDVA joined the EuroHPC JU to contribute its deep industrial experience and excellence in research and innovation to the EuroHPC JU, collaborating to shape and strengthen European innovation on HPC/Big Data related technologies and services by taking innovation joint efforts based on industrial needs.

In alignment with its main core activities and mission, the BDVA remained fully committed to the Big Data Value PPP implementation, and informed about its intentions to contribute to new partnerships to support the Artificial Intelligence Specific Objective in the Digital Europe Programme, as well as the Advanced Computing and Big Data, and the Artificial Intelligence Intervention Areas in the Horizon Europe Programme.

Both ETP4HPC and BDVA are part of the EuroHPC Research and Innovation Advisory Group (EuroHPC RIAG), ETP4HPC with 4 members and BDVA with 2. Both associations have established a closer collaboration during 2019 pursuing full alignment in their contribution to the EuroHPC. BDVA and ETP4HPC have also collaborated in different workshops and events during 2018 (e.g EBDVF 2018).

1.3 Collaboration with AIOTI

For the first time, the BDV SRIA v4 incorporated the collaboration with the IoT community as an important pillar to develop the European Big Data Value ecosystem in particular highlighting the importance of the seamless integration of IoT technology (such as sensor integration, field data collection, Cloud, edge and fog

⁹ http://europa.eu/rapid/press-release_IP-18-5864_en.htm

computing) and Big Data technology (such as data management, analytics, deep analytics, edge analytics, processing architectures) to foster the envisioned market growth in the IoT.

Common activities performed during 2017 crystallised in the formalisation of Memorandum of Collaboration (MoC) in between both Associations (BDVA and AIOTI) with a public signature during the 2nd European Stakeholder Forum event in Villepinte on March 27th 2018¹⁰.

The BDVA-AIOTI official MoC focuses on the following areas, in full alignment with the Big Data Value SRIA:

- *Standardisation – to coordinate input towards international standardisation bodies.*
- *Skills - combining AIOTI and BDVA resources to develop skills and competences in Big Data and IoT and to provide technological and entrepreneurship training initiatives.*
- *Shaping the European Agenda – joining forces and resources in develop strategic roadmaps, positions papers, pilots and other joint activities in order to ensure a seamless integration of IoT and Big Data Value / Artificial Intelligence (AI) technologies.*
- *Innovation ecosystem creation and development – combining AIOTI and BDVA assets towards establishing and growing an EU-wide ecosystem of Big Data Value, Artificial Intelligence, and Internet of Things researchers, developers, innovators, SMEs and entrepreneurs.*
- *Organisation of common events.*

The following activities have taken place during 2018 a part of this collaboration:

- **IoT week 2018:** The Big Data Value PPP (including BDVA, BDVe project and several PPP projects) had a very active participation in the IoTWeek 2018, that took place in Bilbao from 4th to 7th of June. The Big Data Value Association was official partner of the event, and organized two workshops focused on the main pillars of BDVA position regarding Framework Programme 9:
 - Creating value by AI and Big Data: Industrial Applications, Challenges and Outlooks
 - Extracting Value from Next General Digital Infrastructure (Big Data, IoT, Edge, 5G, HPC, Cloud, AI)

Moreover, the BDV PPP was media partner of the event and was present at the exhibition area with their own booth, where the PPP projects and the BDVA were represented.

- **IoT Open Data Access to advance mobility in European cities Workshop:** Co-organised by European Commission, AIOTI, OASC and BDVA on September 4th in Brussels, this joint workshop focused on the IoT benefits for smart mobility. It emphasises the huge potential IoT has for developing new connected automated mobility (CAM) by focusing on a long-term target outcome and working towards immediate actions needed.

The workshop underlined also the importance of access to data in value creation. Existing and upcoming EU data policy and legislation were explored to define the role of regulation and its impact on access to data. The requirements for harmonious integration of the mobility solutions in the interoperable ecosystem for cities was also discussed. Finally, the feasibility of an EU platform initiative for Open Data Access was explored.

- **EBDVF 2018:** Session called “Scaling Industrial Cooperation for Artificial Intelligence”, where AIOTI was invited together with many other players¹¹
- **Connected Smart Cities Conference** (January 2019)¹² where BDVA moderated together with AIOTI as session on Next Generation City of Things.

IoT week in 2019 (June 2019): The IoT Week Conference 2019, organised on June 17th-21st in Aarhus, Denmark, has contributed to further develop IoT-Big Data/AI community collaborations. **Laure Le Bars**, BDVA

¹⁰ <http://bdva.eu/node/998>

¹¹ <https://www.european-big-data-value-forum.eu/program/scaling-industrial-cooperation-for-ai/>

¹² <https://oasc.events.idloom.com/connected-smart-cities-conference-2019/pages/programme>

VP, SAP, participated as speaker in the Opening Plenary session called "Strategic Visions on Future IoT Evolution – Towards a New IoT Paradigm for Business and Society". On Thursday June 20th BDVA organised a session jointly with AIOTI called "Towards a European Data Sharing Space: enabling Data Exchange and unlocking AI potential". The session was moderated by Simon Scerri (BDVA Board member, Fraunhofer IAIS) and Tanya Suarez (AIOTI Board member, BlueSpecs/IoT Tribe). The session opened with statements and key messages from the Presidents of both Associations, Kees van der Klaws (AIOTI) and Thomas Hahn (BDVA) and focused on data availability to unlock AI potential and the need to develop European Data Sharing spaces. The session had a look at converging efforts to set up a Data Sharing Space, for and from a European perspective as a global leader. Attendees to this session got insights on the position paper published by BDVA "Towards a European Data Sharing Space" and ongoing discussions about a data-driven AI, as reflected in the recently published "Strategic Research, Innovation and Deployment Agenda for an AI PPP", available here. Thomas Hahn, BDVA President, Siemens, participated also as speaker in the IoT Week & GIOTS 2019 Closing Ceremony "New Partnerships for Future IoT". During the session Mr Hahn shared his views on the needs for Europe to boost AI adoption and Data-driven AI to create value.

1.4 Collaboration with EFFRA

BDVA started collaboration with EFFRA back in November 2016 during the Valencia BDVA Summit where EFFRA detailed the five key priorities in seven main Research Headlines concerned with the Big Data and Industrial Analytics domains¹³.

Collaboration with EFFRA has been driven by the BDVA TF7 Smart Manufacturing Subgroup, that has been working in matching the BDVA SRIA five Technical Priorities with three main Manufacturing Industry Grand Challenges: Smart Factories; Smart Supply Chains; and Smart Product Lifecycles. This collaboration and technical discussion in between both associations, PPPs and its members, has been documented towards the **BDVA Discussion Paper on Big Data Challenges for Smart Manufacturing**¹⁴ developed during 2017, finalised and presented during the European Big Data Value Forum 2017 and ready for the public during the first quarter of 2018.

Another tangible outcome of this collaboration is **the lighthouse project BOOST4.0** funded by the ICT-15-2017 bringing both the BDVA and EFFRA communities.

BDVA and EFFRA collaboration was formalised during the first quarter of 2018 with the signature of a **Memorandum of Collaboration (MoC)** in between both associations, during the 2nd European Stakeholder Forum event in Paris on March 27th 2018¹⁵.

Both parties acknowledged that data plays an ever-increasing role in manufacturing supply chains, and that both EFFRA and BDVA work in common technical domains such as CPS, Simulation, Data Management, Data Analytics, Artificial Intelligence, Data Protection, Data Processing Architectures, 5G, Cloud and High Performance Computing, IoT, Edge and Fog Computing, etc, and therefore agreed in strengthening cooperation in the following areas:

- **Contributing to the European Digital Agenda and to the Digitising European Industry Initiative**, by joining forces in developing strategic roadmaps, papers, pilots and other joint activities in order to accelerate the use, the integration and value creation of Big Data and AI technologies in the Manufacturing sector.
- **Work jointly on the identification of migration pathways** from today's industrial state-of-play towards the vision of Factories of the Future, with data processing having an ever-increasing role.

¹³ The materialisation of the EFFRA 2020 Roadmap¹³ in the last three years of H2020 (2018–2020) is driven and coordinated by a Consultation Document called 'Factories 4.0 and Beyond' where EFFRA identifies five key priority areas and targets which EFFRA proposes for the 'Factories of the Future' work programme 2018-2020

¹⁴ http://bdva.eu/sites/default/files/BDVA_SMI_Discussion_Paper_Web_Version.pdf

¹⁵ <http://bdva.eu/node/998>

- *Exchanging practices and approaches from existing and future projects of the Big Data PPP and the Factories of the Future PPP, that involve the collection and processing of large amounts of data for the optimisation of manufacturing, from material processing up to supply network operations.*
- *Common events focused on scaling Industrial cooperation models in the Digital Economy and in extracting value from Next Generation Digital Infrastructure (5G, HPC, Cloud, IoT, Big Data, Edge Computing and AI).*

EBDVF 2018 session:

- “Scaling Industrial Cooperation for Artificial Intelligence: where AIOTI was invited together with many other players”¹⁶.
- Data-driven Collaborative Intelligence in Smart Manufacturing and Robotics¹⁷: In the context of the European Big Data Value Forum 2018 in Vienna, the BDVA Smart Manufacturing Industry subgroup organized a workshop to debate on “Data-driven Collaborative Intelligence in Smart Manufacturing and Robotics”. The workshop got contributions from EFFRA, euRobotics, SPIRE and AIOTI: Human Factors in autonomous factories has been introduced by **Chris Decubber** from EFFRA, the new role of Blue Collar Workers in the process industry by **Ingo Graef** from SPIRE, the innovative aspects in human-robot interaction by **Reinhard Lafrenz** from euROBOTICS, Big Data and AI in Manufacturing large scale Pilots by **Oscar Lazaro** (coordinator of BOOST 4.0 project) and new Industrial IoT in Data Economy by **Thomas Walloschke** from AIOTI.

Additionally, BDVA, euRobotics and EFFRA have commonly organised a **workshop in relation to Artificial Intelligence for Manufacturing**¹⁸ (July 2nd 2019 in Brussels). The participants of the workshop will discuss about different topics, related to:

- the needs and barriers for artificial intelligence in manufacturing environments;
- the state of the art and how current solutions address the current needs;
- future research and innovation needs in this domain;
- visions of European public-private partnerships to boost European industrial competitiveness through the adoption and development of trustworthy AI for manufacturing.

1.5 Collaboration with ECSO

As specified in the BDV PPP SRIA “Cybersecurity and Big Data naturally complement each other and are closely related: for instance, in using cybersecurity algorithms to secure a data repository; or reciprocally, using Big Data technologies to build dynamic and smart responses and/or protection from attacks (web crawling to gather information and learning techniques to extract relevant information).” BDVA and ECSO have been collaborating through different workshops during 2018, such as Data4AI workshop in September 2018 and the EBDVF 2018, in particular the session “Scaling Industrial Cooperation for Artificial Intelligence” where ECSP was invited together with representative from other communities¹⁹.

There are several topics in the work program that are at the crossroads between data and cybersecurity. BDVA and ECSO keep collaborating closer during 2018 towards the objectives stated above.

¹⁶ <https://www.european-big-data-value-forum.eu/program/scaling-industrial-cooperation-for-ai/>

¹⁷ <http://bdva.eu/node/1156>

¹⁸ <https://ec.europa.eu/digital-single-market/en/news/workshop-artificial-intelligence-manufacturing>

¹⁹ <https://www.european-big-data-value-forum.eu/program/scaling-industrial-cooperation-for-ai/>

1.6 Collaboration with other International Research and Innovation communities and PPPs

Back in 2015 BDVA signed a MoU with EIT Digital operationalised today through several activities on data skills and entrepreneurship, in particular through collaboration in the BDVe project (EIT Digital is core partner of the BDVe project).

In addition, with the above mentioned PPPs and industrial Associations, BDVA has cooperated with other initiatives and stakeholders during 2018 such as 5G IA/PPP, A.SPIRE, Research Data Alliance (RDA), NEM, IDSA, and some others.

Collaboration in between the Big Data Value PPP and **the 5G PPP** has been managed during 2018 by the BDVA TF7 Telecommunications subgroup. **Specific areas of collaboration have been identified and incorporated to the Big Data Value SRIA and Roadmap.** In particular the following areas of collaboration were identified by BDVA TF7.Telco:

- 5G provides the opportunity to collect and process Big Data from the network in real time. The exploitation of Data Analytics and Big Data techniques supports Network Management and Automation. This will pave the way to monitor user Quality of Experience (QoE) and Quality of Service (QoS) through new metrics combining network and behavioural data while guaranteeing privacy.
- 5G is also based on flexible network function orchestration, where machine learning techniques and approaches from Big Data handling will become necessary to optimise the network.
- Combinations of 5G infrastructure capabilities, Big Data assets and IoT development, may help to create more value, increased sector knowledge, and ultimately more ground for new sector applications and services.

This collaboration is crystalizing in 2019 where BDVA is already collaborating with 5G to align future roadmaps and align paths for future PPPs.

The **SPIRE PPP** organised 2 workshops in Brussels focused on exploring paths for the digital transformation of the process industries and to validate its vision 2050 for those industries.

- **Thematic workshop “Towards Industry 4.0: Digital Technologies in Process Industry”** (October 1st 2018) that intended to explore different digitalisation related sub-topics, such as plant and process control, process design, artificial intelligence and big data, platforms for industrial symbiosis, digital skills, cybersecurity, etc. (agenda and further information [here](#))
- **Stakeholder Workshop “Sustainable Process Industry Strategy Towards 2050”** (October 2nd 2018) to review and validate the SPIRE 2050 Vision, establish collaborative agreements with Member States and other contractual public-private partnerships (cPPPs), and provide the momentum for the development of the SPIRE 2050 Roadmap (agenda and further information [here](#))

The Big Data Value PPP, represented by BDVA, was invited to participate in panels in both days. Data, Artificial Intelligence, data-driven transformation, and new data-driven business models were the centre of the discussion. Topics such as data sharing, semantic interoperability, advanced data analytics, human-machine cooperation, distributed data processing architectures and trust in data and algorithms, were tackled and discussed during the thematic workshop, while the second day the discussion focused more on Data-driven industrial cooperation models, trusted and secure data sharing and digital transformation, co-creation of data and AI platforms with the process industries, and the need of cooperation in between Industrial PPPs to support those industries to walk the path towards a more data-driven economy and to support its vision implementation.

BDVA vision paper for next Framework Programme identifies in a cross-cutting transversal way challenges like those that Process Industries are facing and in particular those linked to scaling cooperation models in a data-driven economy. As result of this workshop BDVA and SPIRE are looking at ways to crystallise closer collaboration, generating value to both the ICT/Data/AI industry and the process industry, and defining new paths for cooperation in pre-competitive Research and Innovation activities.

Collaboration in between BDVA and the **Research Data Alliance Europe** was intensified during 2017 and also throughout 2018. RDA focuses more on Research Data, it is global and led by researchers, while BDVA and the BDV cPPP has more a focus on Industrial Data (not only). However, both worlds are becoming closer and BDVA and RDA Europe share challenges, share members and have a common ambition towards supporting data-driven innovation in Europe. Collaboration has been intensified since then with the participation of BDVA in several RDA Europe events during 2018, collaboration for IoT week 2018 and discussions to support some of the National nodes. In particular BDVA and PPP projects participated in the RDA EU Data Innovation Forum. Representatives from BDVA and AEGIS, DataBio, BigDataOcean, MHMD and Special PPP Projects participated in the Research Data Alliance (RDA) EU Data Innovation Forum, held in Brussels on the 30th of January 2018 and shared their results and examples of challenges to be met, in the overall context of the European Data Economy and data-driven innovation in Europe, and mapped to ongoing activities or future challenges to be addressed by the RDA.

BDVA and PPP projects contributed to some of the main recommendations provided by the RDA, namely i) BioSharing recommendations for data repositories, standards and policies, ii) Scalable Dynamic-data Citation methodology to enable the identification of arbitrary sub selections of data at a given point, and iii) Persistent Identifier Type Register, which contains a conceptual model for structuring typed information, an application programming interface for access to typed information and a demonstrator implementing the interface.

Additionally, the different TF7 subgroups (Application domains) have established collaboration with more sectorial communities such as ERTICO, the Alliance for Logistics Innovation through Collaboration in Europe (ALICE), the Open and Agile Smart Cities Alliance (OASC), or European Space Agency (ESA) to name a few.

1.7 BDVA cooperation with DatSci and AI Awards

BDVA signed in 2018 a MoU with The European DatSci & AI Awards, which promotes and demonstrates the power of Data Science and AI in different sectors in Europe.

The European DatSci & AI Awards are giving the opportunity to the most talented Data Scientists across Europe and their teams to showcase their achievements in 10 different categories, which range from Best use of Data Science & AI for customer experience, health & wellbeing, to achieve social impact, for industry 4.0 and much more. The Awards are not only giving recognition to the best applications and professionals in Data Science & AI, but also create a space for opportunity to share ideas and best practices.

The European DatSci & AI Awards is a full day event that will take place on September 5th, 2019 in Dublin, Ireland. Keep an eye on the upcoming dates to be announced regarding the applications and other information.

1.8 Input from the PPP running projects in 2018

3 projects reported strong connection and links with other PPPs or ETPs and in particular:

- **Transforming Transport** engages relevant transport associations, most notably ERTICO (ITS Europe), ALICE (mutual participation at the events), EIM (European Rail Infrastructure Managers), WATERBORNE.

It has also established links with ARTEMIS-IA participating in their events and with CIVITAS Initiative also participating to the annual CIVITAS Forum Conferences.

- **BOOST4.0** is strongly linked with EFFRA contributing to the development of SRIA and Digital Transformation Pathways for Factory 4.0. It also has links to ECSEL JTI - collaboration with productive 4.0 on large scale piloting and OSS.
- **Fandango** project is linked to the NEM Initiative – New European Media Initiative, the European Technology Platform, fostering the convergence among Media, Content, Creative industries, Social Media, Broadcasting and Telecom sectors.

1.9 Input from the BDVA members

Over 60% of the BDVA members²⁰ reported participation in other PPPs and ETPs. Around 15- 20% of the BDVA members that provided input to the report are also members of ECSO (cybersecurity), 30% are also members of NESSI (ETP for Software), 20% are also members of AIOTI, and with lower percentages BDVA has members establishing links to EFFRA, 5G IA and PPP, NEM, FIWARE, IDSA, ETP4HPC, euRobotics/SPARC, Photonics21 and SPIRE among others.

2 COLLABORATION WITH NATIONAL INITIATIVES

2.1 Input from the PPP running projects in 2018

In relation to engagement with National initiatives related to Big Data Value 10 projects reported specific activities in this area. In particular:

- **DataBio:**
 - The TRAGSA Group is working directly with the **Spanish Ministry of Agriculture**, Fishery and Food, particularly with the Forestry Sub-directorate, to implement DataBio results as AIS control maps and Forest Health status maps.
 - In **Finland**, the Finnish Forest Centre (Metsakeskus, a partner in DataBio) participates in the implementation of a government programme, where the main strategic objective is called Bioeconomy and Clean Solutions (<https://mmm.fi/en/keyprojects>). There, the Finnish Forest Centre participates in wood on the move and new products from forests project, introducing the DataBio-related work.
 - The University of West Bohemia is involved in defining and fulfilling the Strategy for the Development of the Infrastructure for Spatial Information in the **Czech Republic** to 2020 (GeoInfoStrategy), which tackles big data and their processing. Based on DataBio, the general trends in big data processing are being applied.
- **euBusinessGraph: Norway**, various bilateral meetings between SINTEF and Norwegian organizations.
- **EW-Shopp** contributed to Milan Digital Week in March 2018 (**Italy**), which has a strong focus on Big Data value.
- **FashionBrain:**
 - MBF **Germany's** AI Platform. Alexander Löser is a member of this high-ranking expert committee.

²⁰ Sample of 20% of the members

- BMWi Smarte Datenökonomie. Beuth-University acquired two projects in this high-ranking federal program.
- BMWi Smart Data. Beuth-University acquired two projects in this high-ranking federal program.
- **SLIPO: Greece;** HELIX (hellenicdataservice.gr); SLIPO's output is integrated into the suite of value-added services of HELIX Lab (lab.hellenicdataservice.gr).
- **TT: Spain** (INDRA contributes to BigDataSpain and UPM contributes to Big Data network SocialBigData).
- **BigMedilytics** informed the parliamentary committee on health care on the findings of our studies; and contributed to the BIG data letter of the Ministry of Health in the **Netherlands**, speaking to the Dutch minister of health on the findings of the project.
- **Boost 4.0:**
 - **Austria** – Fill is contributing on National research projects.
 - **Portugal** - UNINOVA is responsible for the development and application of a Big Data Architecture focusing on scalability, flexibility, easy configuration and deployment of Big Data technologies, independent of environment, number of machines or type of application. Successful application of the architecture in the domains of Road Traffic and Public Transportation, and Manufacturing.
 - **Spain:** i2CAT participates in some regional initiatives (Catalan IoT Alliance, IoT-CAT Digital Innovation Hub, Catalan AI strategy). INNOVALIA became a Regional IDS Hub and will lead the activities to promote the IDS in Spain. Boost 4.0 participated in the preparation of Spanish "Foro CDTI en Inteligencia Artificial" that took place in February 2019.
- **TheyBuyForYou: Norway**, national strategy for AI.
- **Cross-CPP:** one of the research partners from consortium (BUT), interconnects the Cross-CPP projects with the **Czech** national initiative NCP 4.0 (the National Centre of Industry 4.0) which provides an umbrella of national activities in the area by a large group of industrial partners and academic teams. In particular, BUT is responsible for the big data processing, machine learning and data stream analysis. In 2018, we informed our NCP4.0 partners about preliminary results of Cross-CPP and established links to inform the interested parties about results of the initial demonstrator.

2.2 BDVA, BDVe projects and BDVA members

The BDV PPP CSA (BDVe project) has a specific task to align BDV PPP and the National initiatives, and to engage MS with some outcomes already and it has organised a session with National initiatives during EBDVF 2018 called "Is there a single vision for Big Data and AI in Europe?" attracting representatives from Austria (host country), Spain, Luxembourg, UK, Germany and Sweden).

In 2018 the Big Data Landscape²¹ powered by BDVe will offer a visual representation of major national initiatives in Big Data as a service to those organizations that want to benefit from their Funding opportunities, visibility and networking.

Since 2018 EBDVF (flagship event of the community) is organised in coordination with the country in charge of the Presidency to the Council of the European Union. In 2018 EBDVF was an official event of the Austrian

²¹ <https://landscape.big-data-value.eu/>

presidency; in 2019 EBDVF is an associated event to the Finnish presidency; at the time of submission of this report BDVA is already working to have EBDVF 2020 fully integrated with the Germany presidency in the second half of 2020.

Labelled I-Spaces such as Teralab (France), Big Data Centre of Excellence Barcelona, ITI Big Data Spain and Aragón DIH (Spain), Cineca (Italy), Know-Center (Austria), Smart Data Innovation Lab (Germany), RISE SICS North ICE (Sweden), EGI Foundation (NL and Europe-wide) and CeADAR (Ireland), contribute to establish strong connections in between the PPP and the National and regional initiative in Big Data and Artificial Intelligence.

In addition to this BDVA members reported participation in National initiatives related to Big Data Value. Some specific references are mentioned here below (non-exhaustive list):

Austria:

- RSA FG is coordinating the Austrian lighthouse project Data Market Austria.
- TU Wien: Austrian Computer Society Working Group on Big Data. Various events and discussion on this topic. Proposal for a national Digital Innovation Hub on Artificial Intelligence for Industry. Presentations at meet-ups, such as the Vienna Data Science Group, Deep Learning Meet-up. Participation in the Data Intelligence Offensive launched at the EBDVF 2018. This umbrella organisation should coordinate all data science/big data/data market activities in Austria.

Finland: Prizztech Robocoast “Make the AI as a success factor for Satakunta district” – Project, Collected long term information of the traffic, weather conditions, bus users and route variability in order to forecast the route timetables and the need of the size of the car that is needed in the route in each time of the day.

France: Inria is a hosting partner of the DATAIA Institute, which is the convergence institute in France dedicated to data sciences, artificial intelligence and society (<https://dataia.eu/en/>). Inria is coordinating the national R&I strategy on AI, and is partner in 3 of the 4 AI institutes that have been founded recently.

Germany:

- Software AG “Platform Industry 4.0” (initiative by the German Government to promote digitization of manufacturing), “Scientific Board of the Platform Industry 4.0”, “Platform Learning Systems”(initiative by the German Government to promote the adaption of AI in business and society), German Council for Scientific Information Infrastructures, Bitkom Working Group “Big Data and Artificial Intelligence”(Bitkom is Germany’s leading digital association), BDI Working Group “Artificial Intelligence (BDI is Germany’s federation of industries)”, SDIL.
- Fraunhofer-Gesellschaft: Big Data Alliance includes 22 institutes within the organisation, and meetings are held with national contact points.
- Siemens: Member at German initiative of Industry 4.0 in which big data value technologies are of relevance in the context of Industrie 4.0 applications. Member in the German Platform Lernende Systeme in which big data value technologies are of relevance. Active member in the Catapult Labs in UK. Member in the Austrian Industrie 4.0 Initiative. Member in the Labs Network Industrie 4.0 Initiative. Member of the Steering committee trilateral cooperation (alliance industrie du future, piano industria quattro 4.0, Platform Industrie 4.0)

Italy:

- Engineering (Ingegneria Informatica SpA) is engaged in Big Dive (<https://www.bigdive.eu>) for training activities, Top-IX <https://www.top-ix.org> and it is part of the High-level expert group for Italian Ministry of Economic Development.
- Cineca is partner of the National Competence Center BI-REX (Big Data Innovation & Research Excellence), coordinated by the University of Bologna, which is one of the high specialization centers for Industry 4.0 selected by the Italian government in June 2018, in implementation of the National Plan for Industry 4.0.

Spain:

- Tree Technology SA are participants and sponsors for the Big Data Spain conference (www.bigdataspain.org).
- Grupo TRAGSA: Focal group on data managed by Spanish Public Administration (Ministry of Agriculture).
- Universitat Politècnica de València: Projects funded by the Spanish Ministry of Economy and Competitiveness, and projects funded by the Valencia regional government. Also organisation and participation in conferences about topics related to Big Data and Data Science.
- University of Granada: Participation in the development of the Strategy For R&D+i in Artificial Intelligence, two of the researchers belonged to the Working group in charge of designing this Strategy.
- GMV: Spain, AMETIC Commission on Artificial Intelligence and Big Data. GMV participation is focussed on actions towards the increase of market demand for big data and artificial intelligence technologies to modernize the different productive sectors in Spanish economy.

The Netherlands: Eindhoven University of Technology established JADS.nl together with Tilburg University, actively pushing forward BDV Research & Education there too.

3 DISSEMINATION AND COMMUNICATION ACTIVITIES

The estimated number of people outreached and engaged in dissemination activities developed by the PPP during 2018 is **7,8 Million people**:

- Over 630.000 have been outreached through events, conferences, etc,
- Over 10.000 have been engaged in online activities such as webinars, online training, etc, and,
- Over 5,8 Million people have been outreached via mass media, online or physical format
- Over 1,3 Million people have been outreached via other ways of communication and dissemination.

The **range of stakeholders** outreached is very broad, in alignment with the large amount of business domains covered by the running projects and targeted per project. In addition to the Big data/data research community the cPPP projects outreached a wide variety of stakeholders through different channels. The diversity in actors involved of the list provided in Table 1 shows the **great level of diversity of actors outreached** in many different sectors.

Project

List the project main stakeholders (including some success stories)

AEGIS	Organisations active in the Public Safety and Personal Security domain. Among them: HDIA - insurance company and TU München Living Lab Connected Mobility runtastic GmbH "Mobilitäts-Daten-Marktplatz / Bundesanstalt für Straßenwesen (contact person represents both)" "Data Market Austria / Research Studios Austria FgmbH (contact person represents both)" Trafficon – Traffic Consultants GmbH Andata Development Technology GmbH AVL List GmbH SIA NEXI LiberBank Talanx Banco Popolare JRC Fondazione Bruno Kessler DIBRIS (Università degli studi di Genova - Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi) Poste Italiane BBVA Protergia Interdisciplinary Centre for Health Technology Assessment (HTA) and Public Health (IZPH) - Friedrich-Alexander-University Erlangen-Nürnberg Municipality of Psychiko Centre of Research and Technology Hellas Faros Medical Center GeneLabs Municipality of Ellinikon-Argrroupoli Altus Consulting UK BIOAXIS BIOASSIST Capgemini Consulting Berlin Senate VIMCAR Koola
BigDataOcean	Maritime industries; Maritime research organisations; Energy providers; Ship manufactures; NGOs; Maritime-related public administrations; Research organisations/ Academia; Open public
Data Pitch	Startups - Funding and supporting up to 50 data driven startups to solve data related challenges. So far, we have successfully accelerated 18 startups in 2018 that are creating a positive social, economic and environmental impact. Corporates and Public sector organisations - Working collaboratively with corporates and public sector organisations to help them overcome challenges through building relationships with startups and SME's. So far, we have supported 4 EU based organisations to resolve challenges around retail, transport and information management.
DataBio	<p>The DataBio stakeholders are made up of the below players as distributed through the three main bioeconomy sectors:</p> <ul style="list-style-type: none"> • Agriculture players: public administration, farmers and farming organizations, extension services, private service providers, agroindustry and other processing companies, insurance companies, etc. • Forestry stakeholders include public administration, timberland owners, timber buyers, silviculture and insurance companies, etc. • Fishery stakeholders include public administration, fishing and shipping companies, managing authorities and processing companies. • Big data, Earth Observation and ICT players, including large and SME enterprises as well as research organizations and standardization bodies. • DataBio engages its stakeholders as project partners, members of the DataBio associated stakeholders and as DataBio external stakeholders.
e-SIDES	Researchers Industry (including SMEs and Start-ups, Policy Makers, Civil Society (via representation)
euBusinessGraph	Providers and consumers of company data
EW-Shopp	- Business Exhibitions, workshops, articles (magazines and web portals), Social Media - Tech community Data blog posts, Social Media - Scientific / academic Workshops, Data blog posts, publications, Social Media

FashionBrain	European Fashion Industry: retailers and customers
SLIPO	Geospatial value chain stakeholders; engaged external industrial partners for pre-commercial exploitation (organizations are confidential under NDA)
SODA	see above: crypto community, popular press (general public), (medical, big data, analytics) professional communities, academia, industries, policy makers and regulators. In addition, data subjects will be addressed in the course of the project
SPECIAL	The following stakeholders were addressed through our standardisation activities: - Big Data scientists, technology companies and operational data owners -Big Data scientists and companies -IT security organisations The following stakeholders were addressed via workshop and conference participation: -Big Data scientists, technology companies and operational data owners -Big Data scientists and companies -IT security organisations -Policy makers and parliamentarians -Research communities The following stakeholders were addressed via print and social media: -Individuals, and / or data subjects -Media / Journalists
TT	Transport infrastructure operators and managers: Specialised publications in sectorial media. Big data research community: Active participation in BDVA and other international big data research events/organizations Transport research leaders & professionals, local mobility politicians, civil servants, urban planning professionals, transport and logistics services providers: Active participation at the European, international and national relevant events, presentations and scientific publications at the conferences
QROWD	Stakeholder segment: Smart Cities management teams Target size: 150 Tier 1 cities out of 1.758 EU total Engagement: Direct marketing and personalised presentations, enabled by QROWD created databases and further supported by participation in smart cities related events Stakeholder segment: S&T suppliers in Smart Cities R&D+I projects Target size: 283 Engagement: Direct marketing, enabled by QROWD created databases and further supported by networking and participation in S&T events and online channels
MHMD	Key stakeholders of the project are hospitals. At the end of 2018, the consortium managed to organise a workshop with 5 different clinical institutions in London, providing information about the project and future perspectives, also gathering feedback on the MHMD value proposition.

BigDataGrapes	<p>Technology providers this category include private and public organizations of various sizes (from large IT and agri-food industry players to young dynamic AgriTech and IT startups) that develop technology solutions of relevance to the agriculture and food markets and their value chains. What is more, data providers include various types of public and private institutions that are collecting, managing, using and publishing agriculture and food data. Includes a wide range of institutions (and people working in these institutions), from agricultural research institutes and ministries of agriculture, to food agencies and authorities. Data providers and initiatives: this category include various stakeholders, namely startups, SMEs and other companies that are part of the wider AgriTech sector. Under that category, could be also found policy makers, donors and funding schemes that are active in the agri-food and AgriTech sectors. Individual users and targeted beneficiaries: this category include scientific communities working on the variety of agricultural, food and environmental sciences' topics, such as researchers, academics, data managers, software developers or research support staff.</p>
BigDataStack	<p>We presented to IBM Cloud services the SQL data skipping technology and they were very interested, as of now this technology reached the beta product level</p>
BigMedilytics	<p>Senior Management Health purchasing and Knowledge Centre Radiologists Hospital Management / Administration Healthcare providers. Patients Health care professionals We are working with IBM and VTT as well as our clinical teams. Curie Clinicians and data management staff. University of Southampton general hospital Policy makers, data scientists, health care professionals, technology companies, parliamentarians</p>
BODYPASS	<p>Luxury fashion brands Apparel manufacturers Footwear manufacturers Fashion Retailers Doctors</p>
Boost 4.0	<p>Industrial companies IoT developers / vendors IT solution vendors for industry Software developers Other innovation institution/companies/individuals involved in industrial projects or in big data, AI, etc. initiatives</p>

CLASS	Automotive Communication City public agencies related to mobility Cyber-physical system OEM/Tier1/Tier2 companies
DataBench	Businesses (including SMEs) Policy makers Researchers
E2Data	Stakeholders are related to the use cases, so they belong to the Health, Finance, Environment, and Security sectors.
EDI	Startups knowledgeable about Data Science Data Providers willing to find solutions addressing their challenges
FANDANGO	Journalists, media actors, news room users and professionals, news agency, data scientists, academic expert on digital and social media, etc.
I-BiDaaS	Manufacturing: CENTRO RICERCHE FIAT SCPA (CRF), Banking: CAIXABANK SA (CAIXA), Telecommunications: TELEFONICA INVESTIGACION Y DESARROLLO SA (TID)
ICARUS	<p>1) Primary Aviation Stakeholders (including Airlines, airports, ground handling operators, cargo handling agents, etc.)</p> <p>2) Extra-Aviation Stakeholders (including aviation related service providers such as catering suppliers, parking operators, concessionaires, airport contractors etc.)</p> <p>3) Other stakeholders from other domains, such as health or tourism (including travel agencies, tour operators, health organisations, car rental companies, environmental institutions etc.)</p>
TheyBuyForYou	Public administrations (procurement) Success story: Project presentation for the Economics and statistics working group of the member states, hosted by the EC (DG GROW)
TYPHON	Companies that rely on Big Data Software engineers that manage large Big Data stores Application developers that utilise Big Data Big Data platform providers
Lynx	Our project main stakeholders are law companies and industrial standardization bodies.
Cross-CPP	AS reported in Table 2

Table 1: Target stakeholders per project

3.1 Websites (programme level only)

3.1.1 BDV PPP (www.big-data-value.eu)

As CSA of the BDV PPP, BDVe project in 2018 maintains the website of the Big Data Value PPP. This website has been conceived as the one-stop shop for the Big Data Value in Europe. It provides a direct link to the BDVA website, and a section including all PPP projects with a short description of each and links to their websites (http://www.big-data-value.eu/our_projects/). It also hosts the Big Data Value Education Hub (<http://www.big-data-value.eu/education-hub/>), the innovation marketplace (<http://marketplace.big-data-value.eu/>) and the Big Data Value landscape (<https://landscape.big-data-value.eu/>)

3.1.2 BDVA (www.bdva.eu)

The BDVA website has continued to fulfil its mission to promote the activities organized by the association, to inform about events and news of interest for its members, and to increase the visibility of the association in the European landscape. During 2018 the BDVA portal was visited by 28 404 users (25,4% increase in the last year) in 41 688 session (17% increase in the last year) (1,47 session per user), with an average session duration of 1:59 min. A total of 82,171 pages were visited (7% increase in the last year). Work on the BDVA website and the PPP portal is performed in cooperation for full coherence.

3.1.3 European Big Data Value Forum 2018 (<http://2018.european-big-data-value-forum.eu/>)

The BDVe project also developed and published the website page corresponding to the European Big Data Value Forum 2018, the event jointly organized by the EC and the BDVA in Versailles during last November (see events). The website included information about the programme and speakers, sponsorship options, sponsors and exhibitors, venue, etc ... This portal played a crucial role in the promotion and dissemination of the event. A full report of EBDVF18 can be found in section 6 of this annex.

3.2 Events

The participation and the organization of events are key aspects of the dissemination strategy of the BDVA in particular and of the whole PPP in general. This section summarizes the events organized or attended by the different actors of the BDV PPP.

To mobilise stakeholders the projects have developed intensive communication and dissemination campaigns, with a result of **323 events in total organised by the projects during 2018** (including own events, seminars, conferences, etc.) outreaching over **630.000 participants** with the objective of raising awareness about their different activities, to engage new stakeholders, and to keep expectations about future upcoming results.

Some projects have prioritized the organization of dissemination events, some others have given more importance to the participation in conference workshops, and others have been more focused on the publication on scientific conferences. On top of all these strategies, the priority of the CSA of the PPP, the BDVe project, has been to find synergies such that all projects and BDVA are presented under the common umbrella of the BDV PPP, emphasizing the cross-sectorial interaction and integration, and trying to present the different accomplishments in a strategic manner.

The main flagship events of the community, the BDV Meetup (or Summit in 2019) and the European Big Data Value Forum (EBDVF 2018 for this report) are commonly organised by BDVA, the BDVe project, with participation of BDVA members (the host as organiser and many others contributing to the programme and

organising committee) and the BDV PPP projects. Specific reports for those 2 projects can be found in section 5 and 6 of this annex. Some project describe in their events list of specific workshops of those 2 events.

3.2.1 BDVA events

The BDVA organizes regular Activity Group meetings aimed primarily at members, consisting of workshops, presentations and networking sessions, where the EC is often present and where external stakeholders are also invited to talk about relevant aspects related to the Big Data landscape in Europe. During 2018, BDVA organized 6 Activity Groups, with an average attendance of around 50-70 people, 9 Board of Directors meetings and 4 General Assembly meetings. In addition to this, BDVA organised a 2 standalone workshops:

- Data4AI workshop - September 19 – Brussels: <http://www.bdva.eu/node/1100> (50 participants)
- Workshop DIHs WG on Big Data and AI: <http://www.bdva.eu/node/1123> (150 participants)

BDVA officials are often invited to participate in multiple events to present the cPPP. In 2018 BDVA contributed organising and/or with presentations a number of events and in particular:

- Digitalizing European industry stakeholder forum 2018: <http://www.bdva.eu/node/927>
- RDA EU Data Innovation Forum (<http://www.bdva.eu/node/941>)
- IoT Week 2018: <http://www.bdva.eu/node/976> <http://www.bdva.eu/node/1069>
- IoT Open Data Access to advance mobility in European cities Workshop; <http://www.bdva.eu/node/1094>
- 12th European Conference on Software Architecture (ECSA) (<http://www.bdva.eu/node/910>)
- BDVA organized the first workshop Software Architecture Challenges in Big Data (25/09/18): <http://www.bdva.eu/node/1176>
- Digital Day 2018: 10th of April 2018 (<http://www.bdva.eu/node/1006>)
- BDVA at IJCAI-ECAI-18: <http://www.bdva.eu/node/1076>
- CEN-CENELEC Stakeholder Workshop - Trustworthy Artificial Intelligence – building a framework with standardization: <http://www.bdva.eu/node/1108>
- Civitia 2018: Public Administration and AI: <http://www.bdva.eu/node/1132>
- ICT event 2018
- Representing BDVA in multiple meetings and workshops

BDVA is also the main organiser of the EBDVF 2018 and one of the main organisers of the BDV PPP Meetup (Summit in 2019).

3.2.2 PPP projects events

In this section, it is summarized the different communication and dissemination activities performed by the PPP projects during 2018. Table 2 provides details per project. Further information can be found in the individual project websites and deliverables.

Project	List of activities performed in 2018 to mobilise and outreach to stakeholders in the project (i.e. dissemination and communication activities of any kind, events, workshops, etc).
BigDataOcean	Organisation of/ Participation to workshops; Organisation of hackathon; Participation in conferences; Internal partners' events; Participation in standardisation working group
Data Pitch	Social media: Twitter, Facebook, Lindedin; F6S - Startup platform; Marketing: Website, newsletters, blogs and press/media articles; Events: TNW, Infoshare, Unbound, OSLO Innovation week, Lisbon Investment Summit; Network: Other similar programmes and startup accelerators
DataBio	<p>DataBio organized or co-organized in 2018 32 dissemination items (23 of them of international reach): including 8 workshops, 2 conferences, 7 webinars, 5 hackathons, 4 networking events, 3 exhibitions, 3 trade fairs, 3 poster sessions, 2 pitch events, 2 brokerage events, and 1 training session.</p> <p>About 8000 users visited the project website, which is continuously updated with new entries (deliverables, events, news etc.).</p> <p>DataBio reaches over 4000 people via social networks (Twitter, LinkedIn, Researchgate, Facebook).</p> <p>DataBio partners produced peer-reviewed and non-peer-reviewed scientific papers, mainstream information, and participated and/or organized conferences/workshops and other bioeconomy/Big Data relevant fora, all of which exerted effects on 14000 people. Several DataBio dissemination materials were produced (T-shirts, hats, pens, brochures, posters, banners, roll-up, business cards, nametags) and distributed.</p> <p>Stakeholder events were organized that attracted big ICT, fishery, forestry, and agriculture actors.</p> <p>Webinars and face-to-face training were organized to transfer the technology the project implements. It is estimated another 1000 people came into contact with information contents on DataBio through webinars, training, and the above other dissemination tools. Of particular interest are the hackathons, which were mainly aimed at using satellite imageries, working with spatial open data, metadata management and standardization, and capturing knowledge in the multimedia arena to solve key societal challenges. InspireHack was recognized as a brand of its own kind with international support.</p>

e-SIDES	<p>Workshop, European Scope 200 people</p> <p>Social media, website 2000 people global scope</p> <p>On-line Webinar 50 people European Scope</p>
EW-Shopp	<p>The project made presentations or demos at the following conference, targeted to different kind of audiences. The events are reported using the following schema: Event_Name; Location; Type_of_Event; Partner; Description; Type_of_Audience.</p> <p>Knowledge Discovery and Data Mining (KDD) Conference; London, UK; Conference, Scientific; JSI; Project Showcase presentation - 10 min presentation + poster; Scientific Community, Industry.</p> <p>Ecommerce Day 2018; Zagreb, Croatia; Conference – Business; Ceneje; EW Shopp branded promo materials (roll-ups, name cards, programme etc.), main track presentation; Industry.</p> <p>WebBiz 2018; Zrenjanin, Serbia; Conference – Business; Ceneje; Presentation at the conference; Industry.</p> <p>Milan Digital Week; Milan, Italy; Business-oriented Dissemination talks; Unimib, Measurement; Presentation of EW-Shopp project and desk with showcase of the project business cases; Scientific Community, Civil Society, Industry.</p> <p>Extended Semantic Web Conference (ESWC); Crete, Greece; Conference – Scientific; Unimib; Presentation of a research paper about the usage of ABSTAT to support semantic recommendations; demo of ABSTAT1.0; Scientific Community, Industry.</p> <p>Big Data Value Meet-up Sofia; Sofia, Bulgaria; Project Networking / Conference – Business; Unimib, SINTEF; Project Networking Meeting, Scientific Community, Industry.</p> <p>The Web Conference (WWW); Lyon, France; Conference – Scientific; Unimib; Talk about facet annotation, with applications to the eCommerce domain; Scientific Community, Industry.</p> <p>The European Conference on Service-Oriented and Cloud Computing (ESOCC); Como, Italy; Conference – Scientific; Unimib; Presentation at the conference; Scientific Community, Industry.</p> <p>The International Semantic Web Conference (ISWC); Monterey, USA; Conference – Scientific; Unimib; Presentation at the conference; Scientific Community, Industry.</p> <p>MATES - International Workshop on Mobility Analytics for Spatio-temporal and Social Data, co-located with VLDB 2018; Rio de Janeiro, Brazil; Conference – Scientific; Unimib; Presentation at the conference; Scientific Community, Industry.</p> <p>EBDVF; Vienna; Conference-Business; Unimib, SINTEF, JOT; Presentation of EW-Shopp project and desk with demonstration of the project tools; Scientific Community, Industry.</p> <p>ICT event; Vienna; Project Networking / Conference – Business; SINTEF, JOT; Presentation of EW-Shopp project and desk with demonstration of the project tools; Scientific Community, Industry.</p>

	<p>Colloquium on Industrial Ontology; Oslo; Scientific Workshop; SINTEF; Participant in colloquium; Scientific Community.</p> <p>BDVe PPP Steering Committee; Brussels, Project Networking / Conference – Business; SINTEF, UNIMIB; Participant in SC meeting; Scientific Community, Industry.</p> <p>OSLO BIG DATA DAY 2018; Oslo; Conference – Business, Scientific; SINTEF; Speaker in Conference; Scientific Community, Industry.</p> <p>Workshop on Blockchain and Smart Contract Technologies (BSCT 2018); Berlin; Conference – Scientific; SINTEF; Paper and presentation; Scientific Community, Industry.</p> <p>Data Science International Summer School; Predeal, Romania; Conference – Scientific; SINTEF; Organizer and speaker; Scientific Community.</p> <p>OTM Conferences; Valletta, ML; Conference – Scientific; SINTEF; ODBASE PC chair, paper; Scientific Community, Industry.</p> <p>GEMINI Big Data Meeting; Oslo, NO; Business-oriented; Dissemination talks; SINTEF; Presentations; Scientific Community, Industry.</p>
FashionBrain	<p>Academic Conferences (2500+): IEEE ICDE (FR) / XLDB (USA) / ACM SIGMOD (USA) / HiPEAC (UK) / HCOMP (CH) / COLING (USA) / LREC (Japan) / SWIRL (Australia) / DBTest (DE)</p> <p>Industry Events (2000+) AI Expo Europe (NL) / ADS Drinks & Data Summer Startup (NL) / ACE Start-Up Meeting (NL) / Brussels TechSummit (BE) / Big Data Expo (NL) / EBDVF (AT) / FashionTech (DE) / Federal Ministry of Economics: German Finish Information Exchange (DE) / Handelsblatt goes future: Artificial Intelligence Conference (DE) / Influx Days (UK) / K5 (DE) / Meeting organised by Dutch consulate to meet the local Big Data bureau and AI companies (China) / ProductTank Berlin, Data Products (DE) / SAP Conference on Machine Learning (DE) / Shoptalk (USA)</p> <p>Press Release: Handelsblatt - Online article (http://veranstaltungen.handelsblatt.com/kuenstliche-intelligenz/2018/03/03/ki-als-enabler/)</p> <p>Presentations (5000+): Crowdsourcing papers presentation (Australia) / Data Science at ASOS.com (UK) / FashionBrain with projectstarling.com (Online) / Startup Beezdata.de (DE)</p>
SLIPO	<p>WIGeoGIS Knowledge Day 2017 Munich - Customer Event Germany; 100; DACH</p> <p>Earth Observation data and Sustainable Development, Thessaloniki, Greece; 100; Greece</p> <p>TomTom Hackathon 2018; 250; Europe</p> <p>Earth Observation Services Industry Mission to Australia; 300; Australia</p> <p>Open Science 2018; 50000; Greece</p> <p>Applied Artificial Intelligence Conference of the Austrian Chambers of Commerce; 500; Austria</p> <p>Conference participation (ESWC, SSDBM); 200</p>

SODA	<ol style="list-style-type: none"> 1) Many papers and presentations for the crypto community; 2) Publications addressing the popular press; 3) Presentation to the medical professional community (Medical Informatics Europe conference); 4) Several publications and presentations to big data and analytics community, e.g. DSCE, BDV, academic workshops; 5) MPC in academic curricula; 6) Software (MPC framework) has been presented at industry conferences and hosted on GitHub; 7) Policy makers and regulators are addressed by participating in panel discussion and establishing a dialogue with relevant other projects.
SPECIAL	<p>SPECIAL public project website (https://www.specialprivacy.eu/): 57.702 website views in 2018; Provision of resources, demos and project results.</p> <p>Exploitation resources and assets:</p> <p>GitHub code repository: https://github.com/specialprivacy</p> <p>Policy language and vocabularies: https://www.specialprivacy.eu/platform/ontologies-and-vocabularies</p> <p>Ex-Post Compliance Checking</p> <p>Consent and Transparency Interfaces</p> <p>Consent engine and feedback mechanism (incl. user studies)</p> <p>Twitter account (https://twitter.com/specialprivacy/). Status by Mid Term Review of the project in Sept. 2018: 107 followers, 96 Tweets, in September 8,9k impressions within a 28 day period, numbers increasing each month</p> <p>Announcement channel for project activities, research and development results, and dissemination events</p> <p>Collaboration with an external reference group (Advisory Board)</p> <p>7 AB members overall • AB consists of professionals from different expert domains (Semantics, DataScience, Security & Privacy, Usability & Privacy, EU Data Protection Law)</p> <p>Publication of scientific results at conferences, workshops, in magazines etc.</p> <p>Participation in and organisation of workshops. Examples: W3C Data Privacy Controls and Vocabularies Workshop April 2018, IFIP Summer School Workshop August 2018</p> <p>Collaboration with the BDV PPP: Contributions to monthly newsletters (Jan'18, July'18, Aug'18); Participation in BDV PPP events (e.g. Sofia in Bulgaria, May 2018); Joint dissemination activities together with BDV and aligned projects (e.g. EBDVF 2018 with e-SIDES and MH-MD); Project of the Week social Media</p>

	<p>feature of BDVA (July 2018); Promotion via BDV website, LinkedIn, and Twitter; Audience: Industry, scientific community, general public; Number: estimated 1000</p> <p>Collaboration with other projects and initiatives; ICT-14 and ICT-18 projects involved. Collaborating in various forms: • Website alliances listing • Promotion of project events and publications • Joint research • Joint dissemination activities (workshops, panels...)</p> <p>Standardisation contribution; Setup of a W3C Community Group: Data Privacy Vocabularies and Controls (DPVCG)</p> <p>Participation events other than conferences and workshops: • webinar (Sept. 2018), seminars, and university lectures • Exhibition showcase (June 2018) • Audience: General public, about 200+ • Cybersecurity survey of the JRC</p>
<p>TT</p>	<ul style="list-style-type: none"> • Website running and continuously updated with new content: total nr of unique users: 13.550 • Social Media campaigns: Twitter: 799.967 (impressions), Facebook: 97.999 (reach), 519,764 (impressions), LinkedIn: 6.692 (impressions) • Blog posts publishing and promoting on the TT social media channels: 3.592 visits (sessions) on page • Mentioning on TT work and developments through partners' websites (17 mentioning on 14 partners' websites. Not possible to establish the outreach) • Organisation and co-organisation of sessions and workshops in the European events: For the people reached specifically at the sessions/workshop we organised: <ul style="list-style-type: none"> • Two sessions during the BDV PPP Meetup on 14-16/05/2018, Sofia, Bulgaria: 60+ (30+ people each session) • CIVITAS Forum Conference 2018 session on "Big Data: How to Overcome the Challenges in a Sustainable Urban Mobility Policy", 19-21/09/2018, Umea, Sweden: 100 • EBDVF 2018 session on "Making transport more sustainable and efficient": 30+ • EBDVF 2018 workshop on "Policy issues, opportunities and barriers in big data-driven transport": 30+ • Participation to the international, European, national and local events (the total number of people reached via the events participation in 2018 as based on the total number of participants at the events is approximately 56.330): <ul style="list-style-type: none"> • With project or pilot-related presentations • At the exhibition of the event with booth • Pilot demonstrations at the major events (ICT 2018) • Project video and, in some cases, the dedicated Pilot videos showed at the booth during the major events (ICT 2018, EBDVF 2018, ITS World Congress 2018, CIVITAS Forum Conference 2018, ITF 2018, TRA 2018) • Newsletter (online (disseminated on the website and via Social media) and printed (disseminated at events)): in 2018, 4 issues have been diffused (not possible to count online outreach), around 1200 printed newsletter copies shared • Dissemination and exhibition material (brochure, posters, roll-up, small stand, gadgets with TT logo): around 2.000 printed brochures shared at the events • Press Releases – both, official project PRs (2 in 2018) and the PRs issued by partners (2 in 2018) – shared by the consortium partners to their media contacts and relevant networks • Scientific publications: it's very early to count citations

QROWD	<p>[Type of activity Title (include URL if available) Date Location Size of audience]</p> <ul style="list-style-type: none"> • Public event Parking Challenges March-2018 Berlin 80 • Project event QROWD pitch to Swiss delegation March-2018 Solothurn 4 • Public event An ever open city council March-2018 Trento 20 • Public event ICT Days 2018 - Research&InnovationTalks@DISI March-2018 Trento 25 • Public event Percom 2018 March-2018 Athens 30 • Public event Bridging Sensor Data and Human Knowledge July-2018 Trento 150 • Conference Human Computation and Crowdsourcing (HCOMP2018) July-2018 Zurich 100 • Conference Human Computation and Crowdsourcing (HCOMP2018) July-2018 Zurich 100 • Conference 22nd International Forum on Advanced Microsystems for Automotive Applications September-2018 Berlin 400 1 • Public event Hackathon challenge "The Touristic Network" October-2018 Berlin 400 • Workshop IoT Open Data Access to Advance Mobility in European Cities September-2018 Brussels 30 • Project event QROWDLab 1 May-2018 Trento 100 • Public event ForumPA May-2018 Milan 300 • Project event QROWDLab 2 May-2018 Trento 200 • Public event Data&IoT expert panel July-2018 Rome 40 • Public event Data&IoT expert panel September-2018 Milan 30 • Project event QROWDLab 3 October-2018 Trento 200 • Webinar The best examples of AI systems combine human and machine intelligence November-2018 online 45 • 3PE talk A smart Solution to Calculate the modal split November-2018 Barcelona 100 • Seminar The city of the future: productive, inclusive, resource efficient? December 2018 Cardiff 80 • Seminar WAIS seminar at University of Southampton November-2018 Southampton 30 • Seminar WAIS seminar at University of Southampton December 2018 Southampton 30 • Conference SmartCity Demo at PPP Conference Turkey November-2018 Istanbul 250 • Community event Community Furtwangen June-2018 Furtwangen, Germany 25 • Public event European Big Data Value Forum December 2018 Vienna 300 • Public event BDVA (Big Data Value Association) Meeting May-2018 Sofia 30
--------------	---

MHMD	Type of activity	Title of the event	Date	Location	Role	Type of audience	Number of participants
	Conference	European Big Data Value Forum	21-23/11/2017	Versailles, France	Speaker	Specialised	100
	Conference	12 th Forum on Risk Management in Health	29/11/2017	Florence, Italy	Speaker	Specialised	100
	Workshop	EMA Data Anonymisation Workshop	30/11/17 – 01/12/17	London, United Kingdom	Speaker	Specialised	50
	Conference	RDA EU Data Innovation Forum	30/01/18	Brussels, Belgium	Speaker	Specialised	30
	Conference	BDVA	7-9/2/2018	Brussels, Belgium	Speaker	Specialised	30
	Conference	RDA Advisory group	27-28/02/2018	Brussels, Belgium	Speaker	Specialised	
	Conference	EIH High-Level Symposium "Insuring a healthy health: The winning model"	09/03/18	Brussels, Belgium	Speaker	Specialised	
	Meeting	Meeting on MHMD at DG Connect with Ilias Iakovidis, Benoit Abeloos, Chiara Mazzone, and Pierre Marro	12/03/2018	Brussels, Belgium	N/A	Policy makers	
	Conference	Towards a Health Research and Innovation Cloud – Challenges and Opportunities	13/03/2018	Brussels, Belgium	Speaker	Specialised	
Conference	Wired Health	15/03/18	Milan, Italy	Speaker	Specialised		

Conference	World Summit on the Information Society (WSIS) Forum	19-23/03/2018	Geneva, Switzerland	Speaker	Specialised	
Conference	RDA 11 th Plenary Meeting "From Data to Knowledge"	21-23/03/2018	Berlin, Germany	Speaker, Chairman, Participant	Specialised	
Conference	A World in Transition: The New Jobs - The New Skills	09/03/18	Athens, Greece	Panelist	General public	
Meeting	Meeting of Be-Ys (which has purchased Gnùbila) with Mariya Gabriel, European Commissioner for Digital Economy and Society	09/04/18	Brussels, Belgium			
Meeting	Digital Day 2018	10/04/18	Brussels, Belgium	Attendant	Specialised	
Meeting	IBM MEDICEN	13/04/2018	Paris, France	Speaker	Specialised	
Conference	eHealth2018	8-9/05/18	Vienna, Austria	Speaker	Specialised	
Meeting	Big Data Value Meet-up Sofia	14-16/05/2018	Sofia, Bulgaria	Speaker	Specialised	
Conference	HIMSS Europe	27-29/05/2018	Sitges, Spain	Speaker	Specialised	
Conference	e-Health World	31/05/2018-01/06/2018	Monaco	Speaker	Specialised	
Conference	Blockchain Applications: A view from the EU Parliament	6/6/2018	Brussels, Belgium	Speaker		
Workshop	EU DG Connect: GDPR data policy and compliance	8/6/2018	Brussels, Belgium	Speaker		

Meeting	ERRIN ICT WG Blockchain Meeting	13/6/2018	Brussels, Belgium	Speaker	Policy makers, researchers, entrepreneurs	50
Conference	pHealth Conference 2018	12-13/6/2018	Gjøvik, Norway	Speaker	Specialised	50
Conference	Digital Assembly 2018	25-26/06/2018	Sofia, Bulgaria	Exhibition booth and demo	Specialised	250
Meeting	TEDx Castelfranco Veneto – Blockchain Salon	27/07/2018	Castelfranco Veneto (TV), Italy	Speaker	Policy makers, entrepreneurs	100
Meeting	<i>France Strategie's</i> analysis of blockchains, during auditions of startups in the field	27/07/2018	Paris, France	Speaker	Specialised	150
Meeting	OECD	3/9/2018	Paris, France	Speaker	Specialised	150
Conference	VPH 2018	6/9/2018	Saragozza, Spain	Speaker	Specialised	50
Conference	AI MED Europe	13/09/2018	London, UK	Speaker	Policy makers, clinicians, researchers	50
Meeting	Live demos at REAVIE2018 in France,	12/10/2018	Cannes, France	Speaker	Specialised	150
Course	International Entrepreneurship, MSc in International Management, IBS RANEPА	19/10/2018	Moscow, Russia	Speaker	Specialised	150
Conference	RDA 12 th Plenary Meeting	5-8/11/2018	Gaborone, Botswana	Speaker (remote)	Data researchers and professionals	30
Meeting	Blockchain in sanità	12/11/2018	Rome, Italy	Speakers	Biomedical researchers,	100

						policy makers, entrepreneurs	
	Meeting	MyHealthMyData in Healthcare	19/11/2018	London, United Kingdom	Speakers	Clinicians	15
	Workshop	Blockchain for Europe, with a session dedicated to digital health	27/11/2018	European Parliament, Brussels, Belgium	Attendant	Blockchain stakeholders	100
BigDataGrapes	<p>In 2018, the project organized 4 events (i.e. 3 networking sessions and 1 open workshop) and outreached 110 stakeholders. Moreover, the project participated in 12 events (i.e. conferences, workshops, meet-ups and trade fairs) and outreached 2184 stakeholders. The project has also been promoted via online press publications in blog posts and newspapers articles (such as Kathimerini in Greece and DerStandard in Austria) and outreached more than 640.000 stakeholders. Finally, the project has published its results in 12 publications in conference and scientific journals.</p>						
BDVe	<i>Name of event</i>		<i>Date</i>	<i># participants</i>	<i>comments</i>		
	AI and the future of work – “tegenlicht” documentary for Dutch TV: Panel discussion at Pakhuis De Zwijger, Amsterdam, The Netherlands		December 2018	150	Recorded and broadcasted debate for the general public on AI and the future of work		
	Policylab – the Rotterdam case. Lecture for the ScienceWorks training course “Effective policymaking with data science”. Utrecht, The Netherlands.		May 2018	200	Audience consisted of policymakers and data scientists working in the public sector		
	Introduction lecture “Surveillance theory meets Participation Theory”. Surveillance & Society Conference, Aarhus, Denmark		June 2018	50	Academic conference panel chair on social media platform, participation and surveillance		
	Policylab – the Rotterdam case. Lecture for the Dutch Ministry of Interior Affairs, The Hague, The Netherlands		September 2018	50	Audience consisted of public administrators of the Dutch ministry of interior affairs		

	Co-organiser panel “Privacy data protection and trust – technological solutions for trust in the data economy” EBDVF conference 2018, Vienna, Austria	December 2018	30	Expert panel icw ECSO
	EU Parliament Presentation: Impact Brexit on DDI and the Datamarket in Europe	June 2018	?	
	BDVA AG meeting cybersecurity and data privacy, Brussels	October 2018	10	Expert group
	Designing smart toys in the home: how to do value-driven design for smart agents. Thingscon conference, Rotterdam.	December 2018	30	design experts and SMEs interested in Privacy-by-design
	Co-organiser panel Cybersecurity and novel challenges caused by AI. ICT2018, Vienna.	December 2018	30	Cybersecurity Expert group
	Co-organiser panel Data democratization. Concepts, drivers and barriers of data democratization. ICT2018, Vienna	December 2018	30	Experts and general interest
	Panel Cybersecurity and PETs: challenge for SME uptake. EBDVF, Vienna.	November 2018	40	Experts and general interest, icw E-SIDES project and BDVA
	Session: Getting your Data Driven Idea Investor ready ²² , EBDVF, Vienna	November 2018	25	Panel covering all aspects of supporting SMEs/startups in getting their idea into the market
	How the Power of Data Can Drive the European Union Economy: European Data Market Study and Monitoring Tool, 24 April 2018	24 April 2018	50	http://datalandscape.eu/webinars/join-webinar-how-power-data-can-drive-european-union-economy-european-data-market-study-and
	BDVe Webinar Series - DataBench: Benchmarking Big Data	9 October 2018	58	http://www.big-data-value.eu/resources/webinar/

²² <https://www.european-big-data-value-forum.eu/getting-your-data-driven-idea-investor-ready/>

	BDVe Webinar Series - QROWD, the human factor in Big Data	6 November 2018	54	http://www.big-data-value.eu/resources/webinar/ https://youtu.be/gdL4Wg8F3Fo
	BDVe Webinar Series - Why you need to care about HOW you share data	11 December 2018	50	http://www.big-data-value.eu/resources/webinar/ https://www.youtube.com/watch?v=mj-hNhdVQPA
	<p>It is worth mentioning that besides some specific webinars, BDVe started a webinar series in October 2018 with monthly periodicity. More than 150 people registered to the three webinars hosted in 2018. More than 100 people attended the webinars.</p> <p>The webinars were announced via the BDVA and projects' channels (Twitter, LinkedIn, YouTube) with a broader outreach. The webinars are available through the BDVA web page at http://www.big-data-value.eu/resources/webinar/.</p>			
BigDataStack	Euro-Par 2018 Posidonia 2018 - disseminating BigdataStack and the real-time vessel monitoring scenario			
BigMedilytics	<p>Web-based dissemination</p> <p>Internal presentations and meeting EIThealth</p> <p>Communication with hospital radiologists on site</p> <p>Communication at ECR and RSNA with radiologists, and hospital administrators</p> <p>Organization of a workshop with 2 focus groups: patients and HCPs</p> <p>conferences, invited talks</p> <p>We are actively promoting this project, in particular during the recent World Cancer Day, we focused on AI projects and this pilot was explained numerous times.</p> <p>dissemination(presentation) of our research on COPD exacerbation event forecast</p> <p>press release, publication infographics via website, podcast (Netherlands, Germany, Austria)</p>			

BODYPASS	<ul style="list-style-type: none"> • OURCROWD GLOBAL INVESTOR SUMMIT • TECHMEETING AR / VR • MICAM 2018 • INNOVATION DREAM ENGINEERING AWARD • SIMAC TANNING TECH • START-UP HUB @ EuroCIS 2018 • GLOBAL FOOTWEAR RETAIL CONFERENCE (GFRC) 2018 • COSMOPROF 2018 • MANIFATTURA MILANO CAMP • FASHION INNOVATION AWARD • SPARK-UP INNOVATION COLLECTOR • UITIC: 20th INTERNATIONAL TECHNICAL FOOTWEAR CONGRESS • TECHNOLOGY HUB 2018 • SPS IPC Drives Italia • EXPO RIVA SCHUH 2018 • GIOIN FASHIONTECH • OPEN INN RETAIL AWARD • INTAIL: International B2B Conference on AI technologies for Retail • DIG.IT4FASHION • FORUM RETAIL 2018
Boost 4.0	<p>N° Type of event Partners Name of the event Event Description Date and duration City/Country Type of audience (2) Estimated # of persons reached</p> <p>1 Conference ATLANTIS Euromaintenance 2018 The biggest European bi-annual congress & exhibition on industrial maintenance and asset management. On the verge of the 4th industrial revolution, IoT and predictive analytics are bringing unseen possibilities in maintenance, reliability and condition monitoring. Euromaintenance 4.0 aims to provide a comprehensive and attractive agenda of learning opportunities for CTO's, asset managers, group maintenance & reliability leaders, maintenance & reliability engineers, condition monitoring specialists and operational managers working in asset intensive industries in Europe and the rest of the world. The event will focus on disruptive technologies without omitting the essential basics and best practices in the field of maintenance, reliability, condition monitoring and asset management. It has become an international event with participation from Japan, Brasil, Australia etc.</p> <p>24.09.2018-27.09.2018 Antwerp/Belgium Industry, SMEs and Entrepreneurs 300</p> <p>2 Other ATLANTIS Technology Forum 2018 Annual event bringing together more than 20 organisations from research, academia, public authorities, ICT sector to promote the collaboration between the research communities and private companies from the North part of Greece and the Balkans. The focus is on ICT usage in all sides of entrepreneurship.</p> <p>16.05.2018 Thessaloniki/Greece Industry, SMEs and Entrepreneurs 200</p> <p>3 Conference ATLANTIS Maintenance Forum 2018 Annual event of the maintenance and asset management community in Greece with presence from technical departments from industries and from ICT companies. 2 days usually in October in Athens. This year it could be in Thessaloniki, yet to be confirmed.</p> <p>Athens/Greece Industry, SMEs and Entrepreneurs 200</p> <p>4 Conference ATLANTIS Annual DLEARN Conference Annual event of the European Digital Learning Network with DG representatives, professionals in the use of digital tools for education and training. Includes best practices for VET and adult learning sectors. Anticipated to be 1 day in October in Brussels.</p> <p>Brussels/Belgium Policy Makers 100</p> <p>5 Conference UNINOVA I-ESA 2018 Interoperability for Enterprise Systems and Applications Conference on seamless and secure interoperability for Industrie 4.0, Internet of Things and digital transformation</p>

	<p>22.03.2018-23.03.2018 Germany Researchers and academics 50 6 Conference UNINOVA 9th IEEE International Conference on Intelligent Systems IS'18 Conference on intelligent control, artificial intelligence, decision support systems, neural networks, soft computing, data mining and knowledge discovery, ontologies, machine learning, intelligent measurement, etc. "25.09.2018 - 27-09-2018" Portugal (Madeira Island) Researchers and academics 100-150 7 Exhibition/Trade shows TTech Lange Nacht der Forschung national R&D roadshow 13/04/2018 Austria, all major cities General Public 180.000 8 Exhibition/Trade shows TTech Hannover Fair The world's leading trade show for industrial technology 23.-27. 04. 2018 Germany, Hannover Industry, SMEs and Entrepreneurs 225.000 9 Exhibition/Trade shows TTech Smart Automation Austria SMART Automation Austria is Austria's only industrial automation technology trade fair and focuses on factory and process automation 15.-17.05.2018 Austria, Vienna Industry, SMEs and Entrepreneurs 30.000 10 Conference TTech TSN/A Conference 2018 The TSN/A Conference is jointly organized by Avnu Alliance in Cooperation with the German trade publications Computer&AUTOMATION and Elektronik automotive 26.-27.09.2018 Germany, Stuttgart Technology Clusters 400 11 Exhibition/Trade shows TTech SPS Drives The leading european exhibition for smart and digital automation. 27.-29.11.2018 Germany, Nürnberg Industry, SMEs and Entrepreneurs 70.000 12 Other TTech ICT Proposer Day ICT Proposer Day 04.-06.12.2018 Austria, Vienna Researchers and academics >1000 13 Conference ERCIM/W3C IoT Week Bilbao IoT week 04-08. 06. 2018 Bilbao, Spain Technology Clusters >1000 14 Conference ERCIM/W3C SWEtI Workshop Semantic Web of Things for Industry 4.0 03-07.06.2018 Crete, Greece Researchers and academics >1000 15 fair Siemens SpA SPS IPC DRIVES confrence about Industry 4.0 within the biggest fair of automation of Italy (33.000+ visitors in 2017) may 2018, 1 day Parma, ITA "Machine and device constructor Component manufacturer / OEM (48,4%) Supplier/Wholesalers (11,4%) System Integrator (10,2%) Main Sectors: Electronic/Electrotechnical (11,7%) Mechanical/Iron and Steel Industry (9,7%) Packaging (8,5%)" 200 16 fair Siemens SpA IPAC IMA confrence about Industry 4.0 withing the biggest packeging and processing fair of Italy may 2018, 1 day Rho (Milano), ITA "Machine and device constructor Component manufacturer / OEM Industrial End User Mains Sectors: Food&Beverage Packaging Chemical Fashion & Luxory" 200 17 fair Siemens SpA BI-MU confrence about Industry 4.0 withing the biggest machine tool fair of Italy october 2018, 1 day Rho (Milano), ITA Main Sectors: Machine tools, Robot, Automation, digital manufacturing, auxiliary technology, enabling technologies 200 19 workshop Siemens SpA tbd workshop dedicated to Industry 4.0, connected industry, IIoT october 2018, 1 day Roma (area), ITA OEM, Utilities, Industrial End User, SME, System Integrator 100 20 workshop Siemens SpA tbd workshop dedicated to Industry 4.0, connected industry, IIoT november 2018, 1 day Torino (area), ITA OEM, Utilities, Industrial End User, SME, System Integrator 100 21 workshop Siemens SpA tbd workshop dedicated to Industry 4.0, connected industry, IIoT november 2018, 1 day Padova (area), ITA OEM, Utilities, Industrial End User, SME, System Integrator 100 22 Conference Telefónica EUCNC The annual conference of H2020 projects 18/6/2018, five days Ljubljana, Slovenia Researchers and academics 100 23 Conference Telefónica SDN and NFV World Congrss An industrial conference on the most recent results in NFV and SDN 11/10/2018, four day The Hague / The Netherlands Industry, SMEs and Entrepreneurs 150 24 Exhibition/Trade shows ENEO Mobile World Congress 2018 Mobile World Congress 2018 4 days Spain Industry, SMEs and Entrepreneurs 80 25 Exhibition/Trade shows ENEO Hannover Messe Hannover Messe 5 days Germany Industry, SMEs and Entrepreneurs 80-100 26 Exhibition/Trade shows ENEO AsLAN Madrid AsLAN Madrid 2 days Spain Industry, SMEs and Entrepreneurs 50-60 27 Exhibition/Trade shows ENEO NextSecure Bilbao NextSecure Bilbao 1 day Spain Industry, SMEs and Entrepreneurs 40-50 28 Exhibition/Trade shows ENEO InfoSecurity London InfoSecurity London 3 days United Kingdom Industry, SMEs and Entrepreneurs 70-80 29 Other ENEO Media Publications Publications in different medias at national and international level. - Europe General Public - 30 Conference ENEO QA Test QA&TEST is a unique conference and will bring together professionals and experts from different sectors such as: Railways, Aeronautics, Medical Systems, Electronic Devices, Banking, Insurance or Telecommunications. 3 days Spain Industry, SMEs and Entrepreneurs 70-80 31 Conference ENEO Metromeet METROMEET is a unique event and the most important conference in the sector of Industrial Dimensional Metrology 3 days Spain Industry, SMEs and Entrepreneurs 70-80 32 Conference ENEO Technarte The International Conferences on Art and Technology is an international reference for artists and professionals from the world of technology. It offers a mix between art and technology. 3 days Spain Industry, SMEs and Entrepreneurs 70-80 33 Exhibition/Trade shows LUH Hannover Messe "The world's leading trade show for industrial technologies" -- we will have a booth there where we could also present our involvement in BOOST 4.0 23rd to 27th April Hannover, Germany Industry, SMEs and Entrepreneurs 20 -- 500 (depending on how many actually</p>
--	---

	<p>visit our booth) 34 Conference LUH IDSA Summit as a participant -- "A new event format will be premiered in March 2018: at the Industrial Data Space Association Summit to be held in the PwC Experience Center (Frankfurt am Main) for two days from 22nd to 23rd of March 2018, the focus will be on the development and objectives of Industrial Data Space, and on its members as well. The summit is a chance to get to know more about the user association and the research projects, to actively participate in developments and to continue pushing the internationalisation of Industrial Data Space." 21st to 23rd March Frankfurt am Main, Germany Industry, SMEs and Entrepreneurs ? (depending on number of attendants -- 200?) 35 Exhibition/Trade shows LUH Machine Learning Day Symposium on possibilities of Machine Learning methods in SMEs -- we have a booth there 24th of May Hannover, Germany Industry, SMEs and Entrepreneurs ? (depending on number of attendants -- 200?) 36 Exhibition/Trade shows Ria Stone Green Business Week - Portugal Smart Cities Summit Technological event, in which 6000 visitors are expected, it has application cases in the fields of Big Data, Smart Grids, Energy efficiency, and environment : http://portugalsmartcities.fil.pt/ 11th to the 13th of April 2018 Lisbon/Portugal Industry, SMEs and Entrepreneurs 6.000 37 Exhibition/Trade shows Ria Stone Techdays Aveiro Technological event, in which 10000 visitors are expected, it has application cases in the fields of 5G, IoT, Big Data, Smart Grids, Energy efficiency, and environment : http://www.techdays.pt/ 12th to the 15th of April 2018 Aveiro/Portugal Industry, SMEs and Entrepreneurs 10.000 38 Exhibition/Trade shows Chalmers SCAN AUMOATIC Fair for industry 9-11 October Gothenburg Industry, SMEs and Entrepreneurs 10.372 39 Conference Chalmers Produktion2030 40 Conference Chalmers WSC 18 Simulation conference 9-12 December Gothenburg Researchers and academics 600 41 Other Volvo Research and Technology Development information sharing Volvo internal information sharing activity 2018 May, 2 hour Gothenburg/ Sweden Non profit initiatives 50 42 Other Volvo Technology Area Steering Committee for Order to delivery process Volvo internal technology development review meeting 2018 November, 2 hour Gothenburg/Sweden Non profit initiatives 15 43 Conference Volvo WSC 18 Simulation conference 2018 December 9-12 Gothenburg Researchers and academics 600 44 Exhibition/Trade shows Volvo SCAN AUMOATIC Fair for industry 9-11 October Gothenburg Industry, SMEs and Entrepreneurs 10.372 45 Workshop ued Data AIM Day Indusy consultancy workshop 15/3/2018 1/2 day Edin UK 20 46 Exhibition/Trade shows UED EPCC Datafest Supercomputing to accelerate machine learning & large-scale data analytics. Trade Show 20/3/2018. 1 day Edin. UK 100 47 Exhibition/Trade shows ued The Data Summit https://www.datafest.global/data-summit/ Trade show 22-23/3/2018 2 days Edin UK 500 48 Conference UED EASC 2018 Exascale Applications and Software Conference. EPCC organising. 17-19 April Edin UK 1.000 49 Conference UED Fortissimo Fortissimo Project Conference 23-27 April hanover, Germany 200 50 Workshop ued Application on HPC for Industry https://ceed-scotland.com/about Invited talk 12/06/2017 Edin UK 50 51 Conference ued ISC High Performance 2018 www.isc-hpc.com/ Conference 24-28/6/2018 4 days Franfurt. Germany 100 52 Conference UED SC18 Supercomputing 2018 Conference https://sc18.supercomputing.org/ 11-16 Nov 2018 Dallas, US >1000 53 Conference SAS Italy "BIG DATA & DIGITAL SUPPLY CHAIN: A CHE PUNTO SIAMO?" (http://www.liucbs.it/notizie-ed-eventi/big-data-digital-supply-chain-a-che-punto-siamo)" The conference aims at understanding how the Supply Chain is tackling the challenges of big data and how to get ready for the future. 21/03/2018, half day Castellanza (VA), Italy Industry, SMEs and Entrepreneurs 240 54 Exhibition/Trade shows SAS Italy "SAS Forum 2018" (https://www.sas.com/it_it/events/2018/sas-forum-milan.html)" A SAS national event focused on advanced analytics, artificial intelligence, machine learning. All industries and sectors are represented and targeted with business cases and case histories, including manufacturing. 15/05/2018, one day Milano, Italy 1.400 55 Exhibition/Trade shows ASTI Logimat International Trade Fair for Intralogistics Solutions and Process Management 13-15/03/2018 Stuttgart, Germany Industry, SMEs and Entrepreneurs 8.000 56 Exhibition/Trade shows ASTI Industries Du Futur The Be 4.0 Fair brings together European industrialists looking to source innovations and technologies to take up the strategic challenge of value-chain revolutions. 20-21/1/2018 Mulhouse, France Industry, SMEs and Entrepreneurs 3.500 57 Exhibition/Trade shows ASTI Hispack International exhibition of packaging 8-11/05/2018 Barcelona, Spain Industry, SMEs and Entrepreneurs 38.079 58 Exhibition/Trade shows ASTI All4Pack International exhibition for Packaging, Processing, Printing and handling 26-29/11/2018 Paris, France Industry, SMEs and Entrepreneurs 87.800 59 Exhibition/Trade shows ASTI Logistics Logistics event. The future of material handling, e-logistics, distribution & systems 14-15/11/2018 Madrid, Spain Industry, SMEs and Entrepreneurs 11.600 60 Conference INTRASOFT Intl European Big Data Value Forum (EBDVF) The European Data Forum (EDF) is a key European event for industry professionals, business developers, researchers, and policy makers to discuss the challenges and opportunities of the European data economy and data-driven innovation in Europe.</p>
--	--

	<p>Likewise, the BDVA Summit has quickly grown into a renowned event for all stakeholders in the European data economy. EDF and BDVA join forces to bring you the European Big Data Value Forum. 12-14 November 2018 Vienna, Austria Technology Clusters 400 61 Exhibition/Trade shows TIB Hannover Messe 23rd – 27th of April 2018 Hannover Manufacturing trade show 80.000</p>
CLASS	<ul style="list-style-type: none"> • Promotion of the CLASS technology with industry: • IAB meeting at the CLASS kick-off meeting (8 industries participated) • Presentation to SEAT • Presentation to Cellnex • Creation of a promotional video • Presentation of the CLASS technology in large events: • DATE conference • IoT Week • Presentation of MASA to Italian media • SYSTOR conference
DataBench	<ul style="list-style-type: none"> • Workshops 50 European scope • Webinars European Scope 50 • Website and social media 1000
E2Data	<p>Project was in its first year during 2018 so no dissemination activities took place.</p>
EDI	<p>3 Open Calls, one for startups, another one for experts, another one for data providers, see https://edincubator.eu/get-involved/. Attendance to FIWARE summit in Porto and Malaga. Attendance to EBDVF in Vienna and organized two workshops there</p>

ICARUS	<p>Participation in 9 events (including 5 aviation-specific, 3 BDVA events): (1) BDVA Steering Committee Meeting on February 8th, 2018 in Brussels, (2) Aviation Open Day on March 28th, 2018 in UCY, (3) APEX Exhibition in Hamburg Messe on April 10th-12th, 2018, (4) BDVA Sofia on May 2018, (5) PACEdays on September 11th-12th, 2018, (6) Aviation Festival London on September 5th-7th, 2018, (7) IATA Global Airport and Passenger Symposium, on October 2nd – 4th, 2018, (8) EBDVF 2018 on November 12th-14th, 2018, (9) ICT event on December 4th-6th, 2018. Interviews with selected aviation stakeholders (representing airlines, ground handlers, OEMs, catering companies, etc.). Online questionnaire to capture the aviation-related big data needs and status by EU aviation companies.</p>
FANDANGO	<p>The Dissemination Plan of the project has been developed, providing a concrete roadmap for the consortium to reach the objectives. The Plan addresses the various recipients of dissemination activities: journalists, media companies, data producers, the overall news and information consumption ecosystem and media consumers.</p> <p>The Plan has identified suitable dissemination opportunities and specify a strategy to make best use of potential dissemination activities and the appropriately target the different audiences.</p> <p>The plan has been presented and will be discussed in Naples Consortium Meeting (October 29th, 30th and 31st) across all consortium members to be executed. Social Media. FANDANGO project has set up one Facebook and one Twitter social media accounts in order to disseminate the project results but also to listen to the feedback from producers and users. These social network channels will be used to spread corrections and fact-checks, leveraging when possible the viral nature of the networks. Both accounts will be launched one month before the ICT Proposers Network where the project has already an offline session scheduled, as part of the Dissemination Plan, to engage the community around the project.</p> <p>The project web is the base of platform promotion and engagement for stakeholders and focus groups, that will be complemented with workshops once the tools are available. FANDANGO is also leveraging existing networks and communities whenever possible. We have recently participated in a NLP conference TEXTAV '18 in London, reaching relevant stakeholders and potential users. Additionally, FANDANGO participated in the Global Fact-Checking Summit in Rome (June 18) and will take part in ICT Proposers Day 2018, as mentioned above. FANDANGO was also invited to participate to at Adria Information Disorder AI Tools 2018 Workshop held on June 29-30, 2018, in Koper, Slovenia. organized by COMPACT European project.</p>
TYPHON	<p>Presentations, papers, newspaper articles, workshops, meeting with industry groupings.</p>
Lynx	<p>2 workshops and participated in conferences and events of different nature to disseminate project results and to outreach to stakeholders. One of the workshops was in Europe and the other in Japan. And most of the event were also in Europe.</p>

Cross-CPP	Information available on the project website.
I-BiDaaS	<ul style="list-style-type: none"> • PATC: Programming Distributed Computing Platforms with COMPSs, school attendance, Barcelona, Spain, 30/01/2018 • Bid Data PPP Steering Committee event, Belgium, 08/02/2018 • BigSkyEarth workshop in Novi Sad, participation at the meeting, University of Novi Sad, Novi Sad, Serbia, 26-27/2/2018 • Interview on Radio-Television of Vojvodina (RTV) web portal, RTV, the public broadcasting TV service of the Vojvodina, 06/03/2018 • 3rd Annual meeting of the SCOPES project, event participation, University of Novi Sad, Serbia, 16/03/2018 • Meeting of the Center for promotion of science, talk on I-BiDaaS as a good example of H2020 application and project implementation, Rectorate of the Univ. of Novi Sad, 23/03/2018 • Data intensive supercomputing and resource malleability, Technical University of Berlin, 13/06/2018 • Overview presentation of the I-BiDaaS project, Dept. of Telecommunications and Multimedia, Univ. of Zilina, Slovakia, 15/06/2018 • Big Data Value (BDV) Meet-up, Sofia, Bulgaria, 14-16/05/2018 • 21st International Symposium on Research in Attacks, Intrusions and Defences (RAID2018), Heraklion, Crete, Greece, 10-12/09/2018 • International workshop on Information & Operational Technology (IT & OT) security systems, Heraklion, Crete, Greece, 13/09/2018 • 1st SMESEC workshop Heraklion, Crete, Greece, 14/09/2018 • 7th European Conference on Service-Oriented and Cloud Computing (ESOCC2018), Como, Italy, 12-14/09/2018 • Summers School on Network & Information Security 2018 (NIS Summer School 2018), Heraklion, Crete, Greece, 24-28/09/2018 • Greece's Researcher Night 2018, Heraklion, Crete, Greece, 28/09/2018 • World Circular Economy Forum 2018 Japan, 22-24/10/2018 • I-BiDaaS - PrEstoCloud Workshop, Athens, Greece, 29/10/2018 • European Big Data Value Forum 2018, Vienna, Austria, 12-14/11/2018 • Master Seminar: An Introduction to Supercomputing for non-Computer Scientists, Madrid, Spain, 23/11/2018 • ICT 2018 Conference, Vienna, Austria, 4-6/12/2018 • IEEE Big Data Conference 2018, Seattle, USA, 10-14/12/2018 • Presentation of privacy on Big Data at seminar in University of South Florida, Computer Science Department, University of South Florida, Tampa, USA, 18/12/2018
TheyBuyForYou	<p>Conferences: ESOCC 2018 The European Conference on Service-Oriented and Cloud Computing (ESOCC) 12-14 Sept. 2018 http://esocc2018.disco.unimib.it/SINTEF_ahmet.soylu@sintef.no Y 50 MTSR 2018 The 12th International Conference on Metadata and Semantics Research (MTSR'18) 23-26 Oct. 2018 http://www.mtsr-conf.org/home SINTEF_ahmet.soylu@sintef.no Y 50 EKAW 2018 21st International Conference on Knowledge Engineering and Knowledge Management 12-16 Nov. 2018 https://project.inria.fr/ekaw2018/ SINTEF_ahmet.soylu@sintef.no Y 100 ICT2018 The European Commission is organising its next ICT 2018 conference "Imagine Digital" from 4 to 6 December 2018 in Vienna. A central element of this key event is the networking sessions which complement the conference programme and the exhibition. The networking sessions are organised by stakeholders attending ICT 2018 and aim to boost exchanges between all participants. 4-6 Dec 2018 https://ec.europa.eu/digital-single-market/en/news/apply-networking-session-ict-2018-4-6-december-2018-vienna-austria ALL PARTNERS INT. 10000 ? NovaGob 2018 - V Congreso Iberoamericano de Innovación Pública Main conference for Ibero-American innovators in Public Administration 24th-26th October 2018 https://www.congresonovagob.com/ ZGZ_mjferuiz@zaragoza.es Y 200 IODC 2018 - International Open Data Conference Bi-annual conference on open data, sponsored by the Open Government Partnership 27th-28th September 2018 https://www.opendatacon.org/ UPM, OpenOpps_ocorcho@fi.upm.es Y 1000 III Congreso Internacional de Transparencia A conference focused on transparency in Spain, where public administrations attend and share lessons learned and experiences 26-28 September 2018 http://congresotransparencia.com/ UPM_ocorcho@fi.upm.es N Public Sector Show The largest event of its kind in the UK, the Public Sector Show brings together senior professionals from across central and local government, along with the wider public sector, to hear key policy updates, learn from best practice case-studies and satisfy their procurement</p>

<p>needs to deliver smarter and more efficient public services. 26th June 2018 http://www.psshow.co.uk Open Opps helen@openopps.com N Digital Assembly 2018 25 and 26 June 2018 https://ec.europa.eu/digital-single-market/en/events/digital-assembly-2018-sofia Big Data Value PPP Meetup The European Big Data Value community will gather the 16th of May in Sofia, Bulgaria, in an event organised by the Big Data Value PPP, with the twofold objective of strengthening collaborations among community members 14-16 May 2018 http://www.bdva.eu/node/1018 SINTEF, UPM "till.lech@sintef.no ocorcho@fi.upm.es" Y 200? Innovation Laboratory in Public Procurement Impact in new procurement law (Spain) 21 and 22 March 2018 https://civio.es/novedades/2017/10/27/civios-footprint-in-the-fight-for-increased-transparency-in-public-procurement/ UPM fyedro@fi.upm.es Y 50 Global Public Procurement Conference Inter-American Development Bank hosted conference on public procurement and technology 18 & 19 September https://ec.europa.eu/digital-single-market/en/events/digital-assembly-2018-sofia OpenOpps ian@openopps.com Y 300 Digital Transformation in Public Procurement conference Promoting the use of e-procurement in European member states 2018-10-18 https://ec.europa.eu/growth/content/digital-transformation-public-procurement-conference_en OpenOpps ian@openopps.com GovTech Paris Promoting the use of tech to improve citizens for services 2018-11-12 https://govtechsummit.eu OpenOpps ian@openopps.com Y 300 JIST 2018 (8th Joint International Semantic Technologies Conference) Conference oriented to present the usage of semantic technologies, with a bias into the Asian community 25-27 November 2018 http://jist2018.knowledge-graph.jp/ UPM ocorcho@fi.upm.es Y 100 Business Events Institute for Government use of AI in public services evaluation of potential for using AI in public sector, OpenOpps will submit possibilities for use in public procurement 2018-10-09 https://www.instituteforgovernment.org.uk/events/what-role-should-artificial-intelligence-play-government OpenOpps ian@openopps.com Digital Transformation in Public Procurement - follow up meeting Meeting with suppliers of procurement technologies to promote open licensing / OCDS 2018-10-19 https://ec.europa.eu/growth/content/digital-transformation-public-procurement-conference_en OpenOpps ian@openopps.com Y 300 Fintech District community meets Cerved Stefano Gatti presented project in scope of innovation in Cerved to fiitech companies in IT, 40+ participants .Fintech District aggregates leading Italian operators and leading technology, media and capital partners for the development of the industry, by promoting collaboration, competition, service interoperability and open innovation. juni 2018 https://www.eventbrite.it/e/biglietti-fintech-district-community-meets-cerved-welcome-and-new-opportunities-46619021749# Cerved divna.djordjevic@cerved.com Y 40+ Quanta - Change is the new normal Alberto Danese presented TBFY project in scope of technology Polyglotism at Cerved, 50+ participants - IT companies juni 2018 https://www.linkedin.com/feed/update/urn:li:activity:6417647599947517952/ Cerved divna.djordjevic@cerved.com Y 50+ Meet the Buyer 2018 "Edinburgh's Supplier Development Programme is holding its 10th annual Meet the Buyer event. Meet the Buyer 2018 will see over 60 exhibitors from the public sector, private contractors and business support providers, with over 1,200 delegates expected on the day. As the largest free procurement event in Scotland, the event affords suppliers unprecedented access to buyers and decision makers from across the Public and Private sector, with the opportunity to raise your profile as a business and prepare for upcoming contract opportunities." 6th June https://www.sdpscotland.co.uk/events/meet-buyer-2018/ Open Opps helen@openopps.com N Other PRIMO forum, organized by World bank in Bucharest Procurement, integrity, management and openness forum 08/05/2018 - 10/05/2018 http://www.worldbank.org/en/events/2018/05/08/14th-procurement-integrity-management-and-openness-primoforum MJU Mitja.Medvescek@gov.si Attended 100 Belgrade regional forum Regional forum about public procurement with participants from neighbouring countries. 23/05/2018 - 24/05/2018 MJU Mitja.Medvescek@gov.si Attended 50 CPB (Central procurement bodies) meeting in Helsinki Central procurement bodies meeting which is held twice yearly where heads of public procurement entities of EU and EAA countries meet and discuss relevant topics. 05/06/2018 - 07/06/2018 http://www.hansel-tapahtumat.fi/network-event/participants/ MJU Mitja.Medvescek@gov.si Attended 44 DataStories Kickoff Workshop Kickoff meeting of the DataStories project at the ODI jan 2018 http://datastories.co.uk/events/data-and-storytelling-workshop/ Uni. Soton t.blount@soton.ac.uk Y Data Driven Innovation The largest Italian conference about the world of data and innovation. DDI is the annual event where data scientists and experts tell about how the culture of data is changing our society and our economy 18 mai 2018 https://2018.datadriveninnovation.org/it/ Cerved diego.sanvito@cerved.com Y 500 + Personal data and commercial information Gattai, Minoli, Agostinelli & Partners law firm round table, speaker Steffano Gatti -Head of Innovation & Data Sources Cerved 21 jun 2018 http://www.gattai.it/en/gattai-minoli-agostinelli-</p>

	<p>partners-organizes-the-round-table-personal-data-and-commercial-information-a-matter-of-cybersecurity/ Cerved divna.djordjevic@cerved.com Y 40+ ESWG meeting TBFY Presentation at meeting of the European Commission's Economics and Statistics Working group 2018-12-11 SINTEF till.lech@sintef.no Y ? "Meeting with UK Department for Business, Energy & Industrial Strategy" Meeting between Soton academics and the BEIS department for scoping potential collaborations. TBFY was briefly presented 29.11.2018 https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy Soton g.konstantinidis@soton.ac.uk Y 20+ Meeting with UK's Independent Anti-Slavery Commissioner's Office Meeting between Soton academics and the IASC office for scoping potential collaborations. TBFY was briefly presented 04/12/2018 https://www.antislaverycommissioner.co.uk/ Soton g.konstantinidis@soton.ac.uk Y 6 Ebropolis XVI Curso Superior de Dirección Pública Local para Gestores Iberoamericanos 2018-10-01 ZGZ mjferuiz@zaragoza.es Y 50 II Congreso de Educación en democracia activa (Ayuntamiento de Jaraba) Presentation to local public administration representatives from Aragón 2018-10-01 ZGZ mjferuiz@zaragoza.es Y 100</p>
--	---

Table 2: List of activities performed in 2018 per project to mobilise and outreach to stakeholders in the project

3.3 Social media

It was proposed by BDVe project and accepted by the BoD of the BDVA that the PPP and the BDVA would share the same social media, in order to maximize the impact and to outreach as much audience as possible. Data on activity during 2018 (and growth regarding 2017) for Twitter, LinkedIn, Youtube and Flickr will be provided in the next version of this annex.

3.4 Newsletters

During 2018, the BDVA in collaboration with the BDVe delivered a regular newsletter which collected the most relevant news about the BDVA and the PPP projects, but also news of interest to the members and stakeholders. 5 newsletters were sent during 2018: <http://bdva.eu/node/839>

The General Data Protection Regulation (GDPR) came into effect on 25 May 2018 and BDVA updated its privacy and data protection practices asking all newsletter subscriptions to explicitly renew their interest in receiving the newsletter. Since then the BDV PPP/BdVA newsletter reaches 1000 subscriptions with a percentage of tracked opens over 30% in all newsletters.

4 SUCCESS STORIES

Success stories have been collected from projects and BDVA members for 2018 without a specific criteria (beyond the identification of a success story from them). BDVA and the BDVe project launched in Spring 2019 the Best Success Story Award to identify and give visibility to success stories based on impact, and also developed in a way they can be easily explained to a wide audience. Although the best success story award becomes part of the 2019 activities, the success stories submitted, evaluated and recognised are shown in the general work developed by the projects during 2018 (and before). For this reason, we also add information about Best Success Story award 2019 in this report.

4.1 Success stories from PPP projects

Some examples from projects applying to each of these categories can be found here below (non-exhaustive list). A detailed input per project can be found in Table 3.

Impact in the sector:

- **DataBio** has been running 26 diverse pilots in agriculture, forestry and fishery. 30+ exploitable results have been developed and 13 major pipelines of components have been formed. The work has been catalogued in the DataBioHub, interlinking components, datasets and pilots. DataBio has disseminated widely to the communities with participation/organization in 100+ events. The DataBio pilots have shown promising results and uptake: For example, an olive farm managed to reduce their production costs (spraying and irrigation) by 30%; the Wuudis component in forestry management has matured commercially with deployment in Finland and MoU with Sierra Leone; a forest health service is to be used by the Ministry of Agriculture of the Czech Republic for policy decisions.
- **Transforming Transport** has already confirmed very positive results in different KPI categories among which it is worth mentioning: Operating Cost 32.44% Emissions 26.20%, Time savings 10.60% Emergency Response Time 19.97% Accidentality 2.28% Energy Use 2.93% User perception 25.98% Maintenance Operations 25.21%. The project has generated 25 innovations with market value and potential commercial exploitable. The project has included 22 innovations within the EC innovation radar and these innovations are the core result that will sustain the pilots' sustainability and replication/extension after the project.

Technology and Solutions (to Market):

- AEGIS platform architecture and prototype implementation. The AEGIS platform provides a multi-tenant data management and processing services for big data. The multi-tenancy behaviour allows different users and services to securely and privately access and process their data. The AEGIS platform enables users to share their data with other users on the platform and allow access for specific services. Also, users can use different data processing services that are supported by the platform to process and visualise their data.
- FashionBrain has developed FLAIR - A very simple framework for state-of-the-art Natural Language Processing (NLP), officially integrated in the PyTorch ecosystem, and it has been referenced in many prestigious magazines and online sites.
- EW-Shopp project has developed a set of multiple tools, toolsets, APIs, etc for data enrichments, integration, management such as ABSTAT, ASIA, and many others (details in Table 3) with impact already in real businesses.

- SLIPO Workbench, our cloud-based software-as-a-service for POI data integration is available in beta, and has been applied in a commercial setting to integrate POI data sets on a world-scale.
- **SODA** has created new releases for FRESCO and MPyC MPC frameworks, enabling easier development of privacy-reserving applications, and various MPC-based analytics implementations and demonstrators.
- **BigDataStack**: Data Skipping technology developed within this project is already a beta service for the SQL Cloud query of IBM
- **BOOST4.0**: 10 High Performance Big Data Algorithms & Platforms Extended

Performance:

- **SLIPO** has increased the performance and scalability of POI data integration (transformation, linking, fusion) by one order of magnitude and SLIPO enables geospatial data value chain stakeholders to integrate geospatial data assets and increase their coverage, richness, timeliness and quality, at a fraction of the cost.
- **Transforming Transport** internal KPI's show very important efficiencies in the usage of Big Data and AI in the Transport, logistics and mobility sector (Operating Cost 32.44% Emissions 26.20% Time savings 10.60% Emergency Response Time 19.97% Accidentality 2.28% Energy Use 2.93% User perception 25.98% Maintenance Operations 25.21%.)
- **BigMedilytics** achieved in one of its pilots a better prediction of re-admission for Chronic Heartfailure > 50%.

Resources (New knowledge, ontologies, datasets, ...):

- **FashionBrain** has developed comprehensive knowledge base for the fashion industry (<https://fashionbrain-project.eu/fashion-taxonomy/>). To the best of the knowledge of the project partners, this new knowledge base is the most complete taxonomy, which extends all the existing open-source taxonomies such as Google, eBay and Amazon taxonomies.
- The **SPECIAL** Usage Policy Language (<http://purl.org/specialprivacy/policylanguage>), the SPECIAL Vocabularies (<https://www.specialprivacy.eu/vocabs>) and the SPECIAL Policy Log Vocabulary (<http://purl.org/specialprivacy/splog>).
- **BOOST4.0**: 1 Reference Framework for the European Industrial Data Space.
- Elaboration of the **ICARUS** data management, analytics and sharing methods adapted to the aviation-specific needs.
- **Lynx**: A data portal has been published with relevant data sets for the legal domain and industry standards domain.

First successful experiments and outcomes:

- The **AEGIS** Automotive Demonstrator Scenario 1 (broken road indicator) was implemented in 2018. **AEGIS** Automotive Demonstrator explores how vehicle driving data and other road safety related data can be meshed and modelled, aggregated, and semantically annotated in order to extract meaningful, safety-relevant information.

Incubating new data-driven business and getting additional funding for research:

- **Data Pitch** launched and ran our first accelerator aimed at resolving data related challenges through the use of shared data:<https://datapitch.eu/news/next-generation-of-data-innovators-introduce-ideas-at-data-pitch-kick-off-event/>. It accelerated 18 data driven startups during 2018.
- **EDI** has supported 30 startups across Europe providing solutions to challenges posed by 15 Data Providers in Europe.
- The work in **FashionBrain** on neural text mining has also led to the acquisition of two prestigious large projects from the Federal Ministry of Economics and Energy Affairs (BMWi) with a total funding for partner Beuth University of 1,2 Million Euro and a total funding of 10 Million Euros.

Research Excellence:

- The approach of Named Entity Linkage and deep learning in a database developed by FashionBrain project has been submitted to the IEEE BigComp 2019 in 2018 and has achieved a best paper award,
- **SODA** project has published large number of scientific publications at top-tier conferences such as Crypto.
- **e-Sides** publications on legal and ethical challenges faced in the domain of Big Data Analytics, and Technical and Architectural support and advice to address the aforementioned challenges.
- **SPECIAL publications:** 19 publications in peer reviewed journals, conference and workshops spanning the major communities that are relevant for SPECIAL: Privacy (APF, PETS) Semantic Web (SWJ, ISWC, ESWC, Semantics), Legal Informatics (IRIS), Artificial Intelligence (IJCAI), and Big Data (Innovate-Data).

Standardisation:

- **SPECIAL** has setup the W3C Data Privacy Vocabularies and Controls Community Group (DPVCG) in order to address the needs of the broader business community <https://www.w3.org/community/dpvcg/>.
- **BOOST4.0:** 1 Big Data Reference Architecture, and support to W3C Web Standardisation for Graph Data Workshop and the agreement to launch a W3C Business Group to coordinate technical standards work, and to liaise with other SDOs.

Strong project foundations in place:

- **QROWD** has created the first hybrid architecture for Big Data integration and analytics that seamlessly combines the scalability and reliability of Big Data processing and social computation, across the entire Big Data Value Chain, by leveraging machine learning algorithms and crowdsourcing services, providing the ability of connecting to different crowds, and synchronizing the varying speed of human and machine computation.
- **MHMD** finalised the first full prototype of the MHMD platform, which has been released and demoed for the very first time at the Digital Assembly (25-26 June 2018, Sofia, Bulgaria) at the presence of EU officers, industry representatives and policy makers, along with illustrating the metadata Catalogue and the three representative use cases (hospitals, research centres and individual users).
- **BigDataGrapes has developed its 4 project pilots** (Table and Wine Grapes Pilot, Wine Making Pilot, Farm Management Pilot and Natural Cosmetics Pilot) with promotion in different newspapers (awareness raising).
- **BigMedilytics:** Set up the overall process to enforce the GDPR, as well as, the basis to be aligned with the accountable principle highlighted in the mentioned law. Put in place the computation cluster to store

and compute the images included in the BigMedilytics project. Moreover, set up the secure channels of data provider's cluster, to provide the data access to the technological partners of the project. Additionally, several of the project pilots are already getting a lot of attention from different stakeholders.

- **BodyPass** first prototype of the blockchain-enabled framework for exchanging 3D images using databases or APIs ELSE: ELSE Corp – a Virtual Retail Company.
- **BOOST4.0**: 40 Big Data Enabled Lighthouse Manufacturing Processes Defined, 12 Big Data Pipelines Proof of Concept (PoC) Implemented along the product/process lifecycle, 4 Industry 4.0 Big Data Value Chains Reference Scenarios Defined & Contribution to European Factories of the Future (FoF) digital transformation pathways, 10 Pilot Factories Ramped Up.
- **CLASS**: Identification of the components that will be included in the CLASS SW architecture and first prototype of timing analysis techniques, capable of providing real-time requirements to workflows executed across the compute continuum.
- **E2Data**: Deployment of the TornadoVM framework.
- Design of the **ICARUS** Architecture, integrating the functional and technical requirements of stakeholders.

Project	List and description success stories from projects during 2018
AEGIS	<p>Success Story 1: AEGIS platform architecture and prototype implementation The AEGIS platform provides a multi-tenant data management and processing services for big data. The multi-tenancy behaviour allows different users and services to securely and privately access and process their data. The AEGIS platform enables users to share their data with other users on the platform and allow access for specific services. Also, users can use different data processing services that are supported by the platform to process and visualise their data. AEGIS is built on top of Hopsworks and Hops. It provides an integrated support for different data parallel processing services such as Spark, Flink, and MapReduce, as well as a scalable messaging bus with Kafka, and interactive notebooks with Zeppelin and Jupyter. Under the hood, the data is mainly stored in the AEGIS data store; however, the AEGIS data store APIs are kept hidden from users. Instead, the AEGIS platform provides a Project/Dataset service to allow users to upload/download, explore, and do analysis on their data in a secure way without interacting with the AEGIS data store directly. The AEGIS platform includes the Metadata Service responsible for managing the rich metadata associated with a particular dataset within the AEGIS platform and posing the foundation for it processing. It is based on the AEGIS ontology. Another important service in AEGIS is the AEGIS Harvester. It enables the data import to the AEGIS platform offering the transformation, harmonisation and annotation functionalities required within the context of the platform as well as the rich metadata generation for the imported data. Furthermore, the AEGIS platform includes several tools for users with limited technical background, but potentially useful for all, as they simplify and accelerate the work with data. Among them are: Query Builder providing the capability to interactively define and execute queries on data available in the AEGIS system, Visualiser enabling the advanced visualisation capabilities of the AEGIS platform and Algorithm Execution Container accelerating analysis execution by simplifying the steps that data analysts perform, through eliminating the need to code directly into the notebook. Additionally, the platform includes the Brokerage Engine, an open source implementation of a distributed ledger, acting as a trusted way to record and keep a log of transactions over the AEGIS platforms, which mostly have to do with the sharing of the different data assets. AEGIS applies a model based on blockchain technology to link publishing/sharing data conforming to an AEGIS defined schema, as well as consuming based on fair schemes of collaboration and value sharing. This is the role of Data Policy Framework, which is applied on datasets under request and determining if, and how these can be exchanged between different parties. Different micro-contracts for data sharing managing IPRs, data quality and data privacy issues are defined within the model and are the starting point to be further exploited as part of the tool. Toward the openness and commercialization of public and private datasets, the Business Brokerage Engine is defined as a software component that contains marketplace rules to facilitate the transparent exchange of datasets between different parties.</p> <p>Success Story 2: The AEGIS Automotive Demonstrator explores how vehicle driving data and other road safety related data including e.g. weather data to name one concrete source can be meshed and modelled, aggregated, and semantically annotated in order to extract meaningful, safety-relevant information. For this, various combinations of vehicle driving datasets and datasets from other domains will be investigated to determine which of them provides the most valuable insights into driving styles and driving behaviour. Beneficiaries including drivers and other stakeholders will enhance their (business) value by using the AEGIS platform to create services for safer driving and safer roads. The automotive demonstrator is developed according to three different scenarios, broken road indicator, safe driving indicator, and regional driving safety risk estimator. These scenarios equal the demonstrator versions, i.e. scenario 1 broken road indicator equals demonstrator version 1, which was implemented in 2018. Demonstrator version 2 and 3 will be implemented in 2019.</p>

	<p>Success Story 3: The Smart Home and Assisted Living (SHAL) Demonstrator has the objective to illustrate and implement a services bundle towards advanced monitoring and assisted living management, aiming to improve everyday living and enhance the wellbeing of people belonging to vulnerable groups. The overall demonstrator scenario in summary is the following. A social care service provider, for example a care centre for elderly individuals or a nursing home, desires to exploit big data-driven insights based on data collected from individuals and their surroundings, in order to provide added value services to vulnerable individuals. The services pertain proactive and reactive security and protection through smart notifications and personalised recommendations, as well as indoor comfort and quality preservation. Proactivity and reactivity of the aspired services aim at prolonging self-sufficiency and independence of the at-risk individuals, boosting safety, and facilitating informed decision making, either by the individuals themselves, or by their (in)formal careers.</p> <p>Success Story 4: The Insurance Demonstrator will be developed in three different scenarios: Personalised early warning services for asset protection; Financial impact, customer support and services; Marketing strategy and pricing support services. The first and the second scenarios (early and medium demonstrator), arisen from the detection of an event that has already happened (close to real time notification) or is expected, will include the analysis of the financial impact for the company, the pricing strategy and support and services to the customer possibly involved. The first scenario is implemented in the reporting period. The third scenario will exploit the analysis related to the previous versions to better understand the HDI market: historical in-house datasets and open data (mainly from Public Italian Registers) will be analysed, providing to the Company models to enhance and ease the business planning and advertising campaigns.</p>
<p>Data Pitch</p>	<p>Data Pitch launched and ran our first accelerator aimed at resolving data related challenges through the use of shared data: https://datapitch.eu/news/next-generation-of-data-innovators-introduce-ideas-at-data-pitch-kick-off-event/.</p> <p>Data Pitch accelerated 18 data driven startups.</p> <p>Data Pitch ran our second open call for the 2019 accelerator: https://datapitch.eu/news/second-call-data-pitch/. It received 97 applications, interviewed 58 startups and accepted 29 new startups into our negotiation phase.</p> <p>Data Pitch sponsored the ODI Summit: https://datapitch.eu/news/data-pitch-at-the-odi-summit/. The event was aimed at the trust within data, and the programme shared some of its learnings around how to successfully share data between two parties for the benefit of open innovation.</p>
<p>DataBio</p>	<p>DataBio has been running 26 diverse pilots in agriculture, forestry and fishery. We matched components from technology providers to pilot solutions and developed the v1 of the DataBio Platform. 30+ exploitable results have been developed and 13 major pipelines of components have been formed. The work has been catalogued in the DataBioHub, interlinking components, datasets and pilots. DataBio is also the lead project in defining the BDVA Reference Model. DataBio has disseminated widely to the communities with participation/organization in 100+ events, having 4300+ LinkedIn members and 800+ Twitter followers. The DataBio pilots have shown promising results and uptake: For example, an olive farm managed to reduce their production costs (spraying and irrigation) by 30%; the Wuudis component in forestry management has matured commercially with deployment in Finland and MoU with Sierra Leone; a forest health service is to be used by the Ministry of Agriculture of the Czech Republic for policy decisions.</p>

e-SIDES	<p>Detailed discussion of ethical challenges faced in the domain of Big Data Analytics (Complete publicly available documentation can be found at: www.e-sides.eu)</p> <p>Detailed discussion of Legal challenges faced in the domain of Big Data Analytics especially considering the beginning of the GDPR era. (Complete publicly available documentation can be found at: www.e-sides.eu)</p> <p>Technical and Architectural support and advice to address the aforementioned challenges faced in the domain of Big Data Analytics (Complete publicly available documentation can be found at: www.e-sides.eu)</p>
euBusinessGraph	<p>A set of business cases and corresponding products/services, tools for data publication/enrichment, text processing, ontology for basic company data, linked data.</p>
SLIPO	<p>SLIPO has increased the performance and scalability of POI data integration (transformation, linking, fusion) by one order of magnitude, already reaching our target goals set during the start of the project.</p> <p>SLIPO Workbench, our cloud-based software-as-a-service for POI data integration is available in beta and has been applied in a commercial setting to integrate POI data sets on a world-scale.</p> <p>SLIPO enables geospatial data value chain stakeholders to integrate geospatial data assets and increase their coverage, richness, timeliness and quality, at a fraction of the cost. http://slipo.eu/?p=1397 http://slipo.eu/?p=1399 http://slipo.eu/?p=1300</p>
SODA	<ol style="list-style-type: none"> 1) Created new releases for FRESKO and MPyC MPC frameworks, enabling easier development of privacy-reserving applications, and various MPC-based analytics implementations and demonstrators. 2) Co-organization of the TPMPC 2018 workshop and participation of several other events. 3) Published large number of scientific publications at top-tier conferences such as Crypto.

TT	<p>Innovations: The project has generated 25 innovations with market value and potential commercial exploitable. The project has included 22 innovations within the EC innovation radar and these innovations are the core result that will sustain the pilots' sustainability and replication/extension after the project.</p> <p>TT participation in ICT2018: Considered one of the most important events in Europe to advance technology in the EU, TT proudly showcased the latest results obtained by the project highlighting the latest results of its ambitious pilot cases which are expected to radically transform transport operation through Big Data use. TT was honoured by visits from high-level personalities, including Claire Bury, Deputy Director-General DG CONECT of the European Commission, Ingolf Schädler, Deputy Director-General of the Austrian Ministry of Transport, Innovation and Technology, as well as Gail Kent, Director of Directorate "G" Data, DG CONECT of the European Commission. These and other key stakeholders were keen to learn about the different pilot projects and what they mean to the future of transport in Europe.</p> <p>KPIs show very satisfactory big data impact: Concerning big data impact measurement by KPIs defined in the 13 pilots the project has already confirmed very positive results in different categories among which it is worth mentioning those listed in the table below. KPI category Improvement Operating Cost 32.44% Emissions 26.20% Time savings 10.60% Emergency Response Time 19.97% Accidentality 2.28% Energy Use 2.93% User perception 25.98% Maintenance Operations 25.21%</p>
-----------	---

<p>EW-Shopp</p>	<ul style="list-style-type: none"> • ABSTAT (knowledge graph summaries with ABstraction and STATistics) -Abstat has been successfully used in two distinct scenarios. In the first one it has been integrated with ASIA to provide semantic annotation suggestion for the headers of the considered data set. In the second one ABSTAT has been used to analyse and assess the quality of a subset of the core data and business data. • ASIA with Data Reconciliation and Extension Services - ASIA has been used within the project pilots to enrich the business datasets with weather and events information. Several enrichment services are provided. Preliminary studies seem to prove the scalability in big data scenarios. • Big Data workflow tool - This tool has been used to transform and enrich successfully large-size datasets (around 1 TB). The workflow is completely controllable and according to preliminary experiments almost linearly scalable on the considered datasets. • Weather data API - The weather API has been used as interface towards ECMWF to enrich the datasets of every pilot. Moreover, the data graft platform integrated such API to continuously update the weather data for set of European countries. • Product Data Management Tools - Both tools have been implemented and used in production within the Ceneje's price comparison platform. • Event and Weather Analytics Toolset - The algorithms of this toolset have been used to predict demand peaks, keyword-based campaign starting date, and for workforce optimization within 3 project pilots. • Event Data Management for Data Analytics - The solution eases the exchange of event data to support event-based analytics using and extending the widely adopted Schema.org reference ontology and JSON-LD. Initial testing in the EW-Shopp ecosystem. Maturity will be reached at end of 2019. • Campaign BOOSTER - This business case is allowing JOT to work on how the large data sets containing KPIs related to the marketing campaigns can be prepared and enriched to generated innovative and value-added services. So far, a service pilot has been delivered enabling the correlation between the weather forecast and the keyword so the best moment to launch a campaign can be predicted. Based on this initial success story, technical work is focused on semantic keyword clustering to modelized the behaviour based on the aggregation of impressions and their correlation with the weather forecast and external events to create other services like ALARM system and IMPACT PREDICTOR. • EW-Shopp DataFlow Methodology - In EW-Shopp Business Case 3 the methodology is used to clearly identify the actors involved (in this case mainly EW-Shopp partners), their roles and the logical/functional steps to be covered. This enables have a clear definition (in the same logical representation), of both the technical steps and the required actions (including human and automatized ones). Additionally, the methodology has the positive benefit of remaining valuable throughout the various phases of the data flow from design to implementation and release. The methodology was also consistently applied for the evaluation of all Business Cases in EW-Shopp. • PERFORMANCE INSIGHTS (E-commerce Insights tool for shoppers, sellers and vendors) - "Weather-aware widget pilot service has been created: enrichment of purchase information for customers of eCommerce platforms (it was tested in operational environment ...). Performance Insights tool for vendors has been developed to a stage that was introduced to business partners, expressing positive responses and feedbacks • Contact Center Workforce Optimization Manager - Services have been informatively introduced to business partners, expressing positive responses and interest for test implementations. • Weather and Event-aware BI Sales Strategy Advisor - Within the Pilot integrated platform was built to predict how weather affects daily sell-out on SKU level. The results of predictive models have shown that model algorithms are too much focused on weather and that prediction level needs improvement and focus shift to a higher (demand) level. The existing models need to be improved by including weather demand on more aggregated business features like traffic (online&offline) and enrichment of predictive models with internal marketing events from retailers, calendar events and seasonal differences. • Event and Weather Scout Dashboard - The pilot version of the dashboard was tested with our client; the feedback was quite positive however the predictive model for event will be added to the service.
------------------------	---

FashionBrain	<ul style="list-style-type: none"> • FLAIR - A very simple framework for state-of-the-art Natural Language Processing (NLP) • Flair named official part of PyTorch ecosystem (https://pytorch.org/ecosystem) • Facebook's PyText paper mentions Flair as one of top 5 NLP frameworks (https://research.fb.com/wp-content/uploads/2018/12/PyText-A-seamless-path-from-NLP-research-to-production-using-PyTorch3.pdf?) • Flair mention in most significant advances in AI 2018 on medium.com (https://medium.com/@xamat/the-year-in-ai-ml-advances-2018-roundup-db52f7f96358) • Article on text classification with Flair in TowardsDataScience (https://towardsdatascience.com/text-classification-with-state-of-the-art-nlp-library-flair-b541d7add21f) • Top story on hackernews • Flair on i-programmer • LinkedIn article on Flair on Centos 7 • Flair on O'Reilly.com • Article on Flair on jaxcenter • Mentioned in stackshare among top new tools • Flair in Forbes (https://www.forbes.com/sites/quora/2019/01/15/what-were-the-most-significant-machine-learning-advances-of-2018/#18e9b5706ddc) • Flair docker image made available by third party • How to beat Google's AutoML with Flair (https://towardsdatascience.com/how-to-beat-automl-hyperparameter-optimisation-with-flair-3b2f5092d9f5) • Blog post on different types of contextual word embeddings (Flair, ELMo, BERT etc) • Flair was used to win the Propaganda Datathon • Flair in use at the DFKI medical information extraction system <ul style="list-style-type: none"> • We have built the revival tool (revival.exascale.info), which performs an on-the-fly recovery of missing values in real-world time series. The tool uses MonetDB system as a storage system to considerably speedup the recovery queries. To the best of our knowledge Revival is the first online tool that graphically illustrates the recovery of missing values process using a database system. • We have built a new comprehensive knowledge base for the fashion industry (https://fashionbrain-project.eu/fashion-taxonomy/). To the best of our knowledge, this new knowledge base is the most complete taxonomy, which extends all the existing open-source taxonomies such as Google, eBay and Amazon taxonomies. • MDBS has introduced the concept "in-database machine learning", which is a tightly integrated system consisting of machine learning technology (i.e. TensorFlow) and columnar database technology (i.e. MonetDB) to support advanced data analytics. This work was first presented during the annual IEEE International Conference on Data Engineering (ICDE) 2018 (https://icde2018.org) • The approach of Named Entity Linkage and deep learning in a database has been submitted to the IEEE BigComp 2019 in 2018 and has achieved an best paper award. In FashionBrain, the concept has been prototypically implemented for the database in MonetDB. Currently it is been implemented for the database Exasol as well. • The work in FashionBrain on neural text mining has also led to the acquisition of two prestigious large projects from the Federal Ministry of Economics and Energy Affairs (BMWi) with a total funding for partner Beuth University of 1.2 Million Euro and a total funding of 10 Million Euros.
---------------------	---

	<ul style="list-style-type: none"> The work in FashionBrain has contributed to the master's course in data science at the Beuth university which has been made permanent and receives financial support from the state of Berlin. Beuth University presented results at prestigious industry events, such as Handelsblatt AI summit and Alexander Löser was invited as Expert to the high ranking committee Germany's Platform for AI Systems. Crowdsourcing logging interface (API) (https://github.com/AlessandroChecco/heroku logging/) - Append-only, ephemeral in-memory logging REST interface. (https://fast-logging.herokuapp.com/) Gender bias dataset (https://github.com/AlessandroChecco/gender_bias) - Dataset used in "Investigating User Bias in Image Search: A Cross-Regional Study". It contains 2,811 query-description comparisons for 281 different users.
SPECIAL	<p>Resources:</p> <ul style="list-style-type: none"> The SPECIAL Usage Policy Language http://purl.org/specialprivacy/policylanguage The SPECIAL Vocabularies https://www.specialprivacy.eu/vocabs The SPECIAL Policy Log Vocabulary http://purl.org/specialprivacy/splog SPECIAL Ex-Post Compliance Checking demonstrator: Demonstrates how usage policies together with event logs can be used to perform ex-post compliance checking https://www.specialprivacy.eu/platform SPECIAL Consent and Transparency Interfaces demonstrators: Various consent user interfaces and the transparency dashboard https://www.specialprivacy.eu/platform <p>Standardisation: Setup the W3C Data Privacy Vocabularies and Controls Community Group (DPVCG) in order to address the needs of the broader business community https://www.w3.org/community/dpvcg/</p> <p>Deliverables: By the end of 2018 SPECIAL has produced 34 deliverables (19 of which were delivered in 2018). Public deliverables can be found here: https://www.specialprivacy.eu/publications/public-deliverables</p> <p>Publications: 19 publications in peer reviewed journals, conference and workshops spanning the major communities that are relevant for SPECIAL: Privacy (APF, PETS) Semantic Web (SWJ, ISWC, ESWC, Semantics), Legal Informatics (IRIS), Artificial Intelligence (IJCAI), and Big Data (Innovate-Data). https://www.specialprivacy.eu/publications/scientific-publications, Talks not linked to publications A list of talks given can be found https://www.specialprivacy.eu/publications/scientific-publications</p>
TheyBuyForYou	No major published success stories during the first year of the project.
TYPHON	The project is in development of the early prototypes of the project technologies. Success stories will be reported when technologies have been developed at end of June 2019, and early industrial evaluations are completed at end of September 2019.
Lynx	An initial version of the Lynx Data Management Plan has been released. A data portal has been published with relevant data sets for the legal domain and industry standards domain. Spanish legislation has been converted into RDF according to the ELI ontology.

<p>QROWD</p>	<p>QROWD's overall objective is the development of a socio-technical solution to cross-sectorial Big Data integration in a European urban Smart Transportation, supporting participation and feedback of various stakeholder groups to foster data-driven innovation and synchronized access to Big Data sources. To achieve it, QROWD has created the first hybrid architecture for Big Data integration and analytics that seamlessly combines the scalability and reliability of Big Data processing and social computation, across the entire Big Data Value Chain, by leveraging machine learning algorithms and crowdsourcing services, providing the ability of connecting to different crowds, and synchronizing the varying speed of human and machine computation. From a socio-technical point of view, QROWD enables more flexible and personalized interactions with public administrations through services co-created together by citizens (involved not only as end users, but also as collaborators), businesses and public administrations through practicing the quadruple helix approach. Services provided by QROWD provide the cornerstone for the development and assessment of mobility policies for lessening overall congestion in the cities, enhancing energy efficiency and environmental protection, e.g., with respect to the transportation-related energy use and greenhouse gas emissions.</p> <p>Along 2018 some of the most relevant urban development stakeholders' international fora have recognised QROWD's potential contributions to improve quality of life of citizens and (Smart) Cities by providing innovative solutions for urban mobility and citizen engagement. Just to highlight two of them, in the Smart City Expo World Congress (SCEWC) and the Open & Agile Smart Cities (OASC), the QROWD team presented some of the innovations targeted at improving the urban mobility in smart cities.</p>
<p>BigDataStack</p>	<ol style="list-style-type: none"> 1. Common demo of IBM & DANAOS at the Think 2019 conference. See https://www.ibm.com/blogs/bluemix/2018/11/ibm-cloud-sql-query-at-think-2019/ 2. Data Skipping technology developed within this project is already a beta service for the SQL Cloud query of IBM
<p>BODYPASS</p>	<p>First prototype of the blockchain-enabled framework for exchanging 3D images using databases or APIs</p> <p>ELSE: ELSE Corp – a Virtual Retail Company won the Innovation Award 4.0 in the Start-up category, with their industrial Open Innovation project. http://blog.else-corp.com/2018/04/else-corp-the-first-start-up-classified-for-the-innovation-award-4-0</p>
<p>CLASS</p>	<ol style="list-style-type: none"> 1. Identification of the components that will be included in the CLASS SW architecture, whose objective is to ease the development of data analytics methods executed across the compute continuum, from edge to cloud, while providing timing guarantees. 2. First prototype of timing analysis techniques, capable of providing real-time requirements to workflows executed across the compute continuum. 3. Definition of programming methods, based on serverless technologies, capable of abstracting the programmability from the underlying platform. 4. Identification of advanced mobility functionalities to be implemented in the city of Modena
<p>DataBench</p>	<p>Overview of Business KPIs for BDA benchmarking systems</p>
<p>E2Data</p>	<p>Deployment of the TornadoVM framework</p>

Cross-CPP	The official start point of the project was December 1st, 2017. Due to a late required partner change, the Accession forms could only be signed on February 1st, 2018, and consequently the kick-off meeting took place at end of February. Because of that, the project started with a delay of nearly three months. However, key achievements in 2018 is the Cross-CPP Public Innovation Concept (see https://cross-cpp.eu/2019/02/10/cross-cpp-public-innovation-concept-created/)
------------------	---

MHMD	<p>In the course of 2018, the Consortium managed to finalize the first full prototype of the MHMD platform, which has been released and demoed for the very first time at the Digital Assembly (25-26 June 2018, Sofia, Bulgaria) at the presence of EU officers, industry representatives and policy makers, along with illustrating the metadata Catalogue and the three representative use cases (hospitals, research centres and individual users). The prototype development has initially been driven by the research use case requirements, i.e. how external institutions will see, review, request access to and finally obtain data from both individuals and hospitals. The main need that emerged early on was indeed that of a data viewer with robust browsing capabilities. This need was addressed through the development of the Data Catalogue. The other developed functionalities serve all three use cases.</p> <p>The workflow in its current state supports in fact all MHMD user types:</p> <p>A Hospital administrator can:</p> <ol style="list-style-type: none"> 1) create a new organisation 2) register a data set, applies and manages permissions 3) monitor data usage <p>An Individual can:</p> <ol style="list-style-type: none"> 1) Sign up on the mobile app 2) Sync his/her data multiple sources through the personal data application 3) Set-up the consent <p>A Researcher can:</p> <ol style="list-style-type: none"> 1) Browse the catalogue 2) Gather descriptive statistics 3) Request and downloads cleared data sets <p>The underlying blockchain and privacy preserving backend supports compliance and access control, data mobilization and automated application of privacy preserving measures.</p> <p>Additionally, in accordance to the necessity of proceeding the onboarding of both hospitals and individual users, the Consortium has started to flank the general communication with focused outreach efforts directed towards specific groups of users, planning dissemination events and communication campaigns accordingly. Among these, the Consortium organised “MyHealthMyData Blockchain in Healthcare” (19 November 2018, London) a one-day event, kindly hosted by Queen Mary University of London, where representatives of clinical centers inside and outside the Consortium have been invited to discover the MHMD value proposition for hospitals, together with potential, open issues and caveats of the adoption of a blockchain-based system for sharing health data through privacy preserving and encrypted computation technologies, generation of synthetic datasets, as well as the onboarding process and the role and liabilities of hospitals as Data Controllers under the GDPR, along with provision of adequate solutions for GDPR-compliance. The event was held at the presence of representatives of the four Consortium hospitals: QMUL/Barts, UCL/GOSH, Charité and OPBG. Additionally, a completely new institution joined the meeting, the Policlinico Gemelli University Hospital (based in Rome). All these clinical centres provided valuable insights on the expectations, as well as the major concerns and priorities of clinicians both in the clinical care and in the research context.</p>
-------------	--

<p>BigDataGrapes</p>	<p>The main objective of the project is to help companies across the grapevine-powered value chain ride the big data wave, supporting business decisions with real time and cross-stream analysis of very large, diverse and multimodal data sources. This involves data collections that required in order to support the companies' operation system in the international markets. In order to address this objective, four main pilots have been designed in 2018 and the data generated from these pilots will be exploited. These pilots are the (a) Table and Wine Grapes Pilot (coordinated by Agriculture University of Athens, Greece), (b) the Wine Making Pilot (coordinated by INRA, France), (c) the Farm Management Pilot (coordinated by ABACO, Italy & Geocledian, Germany), and (d) the Natural Cosmetics Pilot (coordinated by SYMBEEOSIS, Greece).</p> <p>Table and Wine Grapes Pilot: Throughout the lifecycle of the project, Agricultural University of Athens will collect and monitor sensor, farming and phenological data derived from all test sites located in Greece. Some of the goals to be achieved through this sensor and farming data collection, is to denote associations and correlations between precision agriculture information and phenological data and grape and wine chemical analysis.</p> <p>Wine Making Pilot: The INRA's experimental unit of Pech Rouge (UEPR) is dedicated to research in the fields of viticulture and oenology with an integrated point of view that allows a transversal approach from the vineyard to the packaged final product.</p> <p>Farm Management Pilot: This pilot is focused on developing a unique system that satisfies the following needs: (a) Farm Management with all the functionalities to support the farmer in his day by day activities and gather data from the field, (b) Hosting data from different sources with proper tools and functionalities for comparisons and easy data management, (c) Data exchange. A "day by day" data producer, to feed the generated data into the other BigDataGrapes components, and make use of the incoming information from the other BigDataGrapes components, and (d) Data visualization. The data related to the farmer should be displayed in a way that provides an added value and new insights to the farmer for his activities.</p> <p>Natural Cosmetics Pilot: Wine making produces a lot of by-products that may have a significant biological value if there are adequate data concerning farm management. These data can lead to decisions concerning the processing of by-products in order to produce high added value active ingredients for cosmetics and food supplements.</p> <p>The project pilots have been published to the following online newspapers: Kathimerini [Greek Newspaper]: http://www.kathimerini.gr/1008009/gallery/epikairothta/perivallon/agrotikh-paragwgh-me-doryforoys-kai-rompot DERSTANDARD [Austrian Newspaper]: https://derstandard.at/2000098391710/Wie-Big-Data-Winzern-hilft-besseren-Wein-zu-produzieren?ref=rss</p>
<p>EDI</p>	<p>The following webpage summarizes the work we have done with 30 startups across Europe providing solutions to challenges posed by 15 Data Providers in Europe: https://edincubator.eu/startups-2018/. Each company page, contains details about their work carried out within the EDI incubator. For instance, https://edincubator.eu/edi-explore-s004/ Observe that 30 starting companies have been progressing through the EDI incubator from September 2018 until April 2019. The initial 30 companies progressed into the EXPLORE stage. At the end of it, in a Datathon event in Berlin 16 were selected to progress to the EXPERIMENT stage (https://edincubator.eu/2018/10/24/what-happened-at-edi-berlin-take-a-peek-and-find-out-which-16-winning-startups-are-accelerating-on-to-bilbao/). The 16 teams in EXPERIMENT stage developed an MVP in a 4-month span which was defended in Bilbao on 19th February (https://edincubator.eu/2019/02/19/final_big_data_startup_experiment/). 6 teams qualified to the EVOLVE stage. Currently, those companies are finalizing the EVOLVE stage and will present their results in Berlin at the final 1st incubation round event to be celebrated on 7th May. The challenges companies addressed can be accessed at: https://edincubator.eu/challenges-2018/ which were based on datasets made available at https://data.edincubator.eu/dataset</p>

<p>BigMedilytics</p>	<p>Demonstrated how Big Data plays an important role in improving the care of prostate cancer patients in Sweden at the European Big Data Value Forum in 2018 in Vienna, Austria. Presentation given by: Prof. Olof Akre, Karolinska Hospital and Dr. Ralf Hoffmann, Philips. Description of event can be found here: https://www.bigmedilytics.eu/bigmedilytics-project-presented-in-the-european-big-data-value-forum-in-vienna/</p> <p>Set up the overall process to enforce the GDPR, as well as, the basis to be aligned with the accountable principle highlighted in the mentioned law.</p> <p>Put in place the computation cluster to store and compute the images included in the BigMedilytics project. Moreover, set up the secure channels of data provider's cluster, to provide the data access to the technological partners of the project.</p> <p>Installed the RTLS in the emergency department to improve knowledge about the timing of care process in sepsis</p> <p>With other techniques (LASSO regression) then we usually use (non-regularized linear and logistic regression), we made better models to predict our target variable. We achieved a better prediction of re-admission for Chronic Heartfailure > 50%.</p> <p>We have developed an algorithm based on the established Forta Fit for the Aged Score (see: Pazan F, Burkhardt H, Frohnhofen H, Weiss C, Thom C, Kuhn-Thiel A, Wehling M. Higher Fit-FOR-The-Aged (FORTA) Scores Comprising Medication Errors are Associated with Impaired Cognitive and Physical Function Tests in the VALFORTA Trial. <i>Drugs Aging</i>. 2019 Mar;36(3):269-277. doi: 10.1007/s40266-018-0626-3). Together with the initiator of the score, Prof Wehling, we have develop an algorithm including extensive validation rules that can be applied in first instance to German health insurance data to provide an error classification model that indicates over- or underprescription of medication, as well as various error codes related to missing diagnoses or treatments. In a next step this algorithm will be applied to routine data extracted from clinical records.</p> <p>As part of the project contextflow has to deploy the radiological search engine prototype at the radiology department of Medical University of Vienna / General Hospital Vienna. In 2018 there was tight collaboration between these project partners - also serving as blueprint for the starting coordination for the pilot in Spain. We could design a state of the art study that will evaluate the prototype in a variety of situations with a varied group of radiologists. Collaboration has been excellent, and the deployment, collection of retrospective data, and preparation are on time.</p> <p>Initial prototype of GDM (gestational diabetes mellitus) solution. Innovative real-time cloud-based analytics solution in combination with a new generation of RPM systems to support the treatment of those patients diagnosed with GDM. The first version of the mobile app was demonstrated to both healthcare professionals and to patients at the Rotunda for their input and feedback. The mobile app very welcomed by health care professionals as it would greatly help their day to day work. At the moment, they only receive 3 glucose readings from their patients once every 2 weeks. With the mobile app, the dieticians, doctors, and midwives will be able to review their patients' readings daily if they wish to as the patients will be taking minimum 5 readings a day. This will allow the health care professionals the option of reviewing their patients' glucose levels at smaller time intervals as opposed to every two weeks as done as standard of practice in the Rotunda. This will also allow health care professionals to intervene earlier instead of having to wait the two weeks. Patients will also have the option to log their food intake. The dieticians were especially happy with this section as they will be able to give dietary advice specifically to patients depending on what food they are logging. We also ran a patient focus group where app has been demonstrated. The patients who attended gave positive feedback about the app. The patients liked the fact that they were doing daily readings at home as it allowed them to gain greater control of their diabetes and also felt assured that their sugar levels were being monitored by health care professionals and that they could request their sugars to be reviewed by a health care professional via the app.</p> <p>We have implemented the first prototype of the Lung-Cancer Pilot. We have succeeded to define the relevant items to characterise the clinical items will inform outcomes for the image analysis. The press release to mark the start of the project gained a lot of attention. We published 9 infographics that summarize the result</p>
-----------------------------	---

	<p>of our working concerning the rules for Big data technologies in European Health Care. We created the dash board with which the pilot can present and analyse the productivity gains.</p>
<p>Boost 4.0</p>	<p>40 Big Data Enabled Lighthouse Manufacturing Processes Defined (VW Light metal Casting, GF Augmented Manual Assembly, GESTAMP ZDM (Hot) Stamping & Hydro-forming, CRF Autonomous Assembly Islands, BAT Predictive Maintenance Service, VW & VOLVO Autonomous (Intra) logistics & warehouse, FILL & GF High-precision Lot-size-1 Machining, PHILIPS Mass-manufacturing Injection Molding 4.0, PRIMA Adaptive Welding, WHIR Spare Part Customer Service Management)</p> <p>10 High Performance Big Data Algorithms & Platforms Extended (ESI & ATB Hybrid Twin Engineering Analytics, VISUAL & UNINOVA Real-time Simulation Based Planning, SIEMENS Data Lake Operational Analytics, IBM Hyperledger Distributed Production Scheduling, ATLANTIS & FhG Rule-based Fault Detection & Prediction, RISC & TTTECH Edge-powered Engineering Analytics, EPFL, INNO Hybrid Predictive Production Planning, PHILIPS, IMEC, i2CAT IoT Stream Operational Analytics, TRIMEK & CAPVIDIA 3D Industrial Lake Visual Production Analytics, SAS & POLIMI & IMT In-memory Demand Forecasting)</p> <p>12 Big Data Pipelines Proof of Concept (PoC) Implemented along the product/process lifecycle</p> <p>1 Big Data Reference Architecture & Contribution to Digitising European Industry Strategy brochure (Digitising European Industry: 2 years after the launch of the initiative) on Big Data Digital Manufacturing Platforms https://ec.europa.eu/digital-single-market/en/news/digitising-european-industry-2-years-brochure</p> <p>1 Reference Framework for the European Industrial Data Space & White Paper “Sharing data while keeping data ownership – the potential of IDS for the data economy”: https://www.internationaldataspaces.org/publications/sharing-data-while-keeping-data-ownership-the-potential-of-ids-for-the-data-economy/</p> <p>4 Industry 4.0 Big Data Value Chains Reference Scenarios Defined & Contribution to European Factories of the Future (FoF) digital transformation pathways (https://www.effra.eu/pathways-digitalisation-manufacturing)</p> <p>10 Pilot Factories Ramped Up</p> <p>2 International Industry 4.0 Agreements among FIWRE, IDSA, Industrial Internet Consortium (ICC) and Industrial Value Chain Initiative (IVI) Japan</p> <p>2 demonstrations (Hannover Fair 2018 & IoT Solutions World Congress 2018) of FIWARE-based Industrial Data Space (IDS) Connector Open Reference Implementation & Strategic paper prepared “Jointly paving the way for a data driven digitisation of European industry”: https://www.internationaldataspaces.org/publications/strategic-paper-for-europe-idsa/.</p> <p>1 Hyperledger-IDS implementation (model, the blockchain backend, and a mobile user interface).</p> <p>Support to W3C Web Standardisation for Graph Data Workshop and the agreement to launch a W3C Business Group to coordinate technical standards work, and to liaise with other SDOs</p> <p>FILL Cybernetics Product Launch (Fill’s Machine tool IoT Platform - here https://www.youtube.com/watch?v=W9t3Zr-JpTE)</p>

<p>ICARUS</p>	<ul style="list-style-type: none"> • Elaboration of the ICARUS data management, analytics and sharing methods adapted to the aviation-specific needs. • Definition of the ICARUS MVP and validation within the consortium and with external stakeholders (through dedicated interviews with representatives of the aviation data value chain, that were not already represented in the consortium, provided very constructive feedback and are eager to become beta users of the ICARUS platform). • Design of the ICARUS Architecture, integrating the functional and technical requirements of stakeholders both internal (e.g. airports) as well as external (e.g. airlines) to the consortium, focusing on security. • Initial teaser video (created in May 2018) available at: https://www.youtube.com/watch?v=f5MaSoasIG4
<p>I-BiDaaS</p>	<p>I-BiDaaS EU project (GA No 70787) started in January 2018. During the first year, the consortium managed to achieve the following success stories: 1. Experiment and Outcome - I-BiDaaS Minimum Viable Product (MVP): Starting on an early stage in the project, the I-BiDaaS Minimum Viable Product (MVP) was released on M12 according to the work plan. The I-BiDaaS MVP already incorporates a good number of I-BiDaaS technologies, demonstrates integration between a number of different components, and involves both batch and streaming processing. The proposed MVP revolves around a real use case scenario in the security of the banking sector, providing a synthetic dataset built with the characteristics of the real bank digital services. This use case analyses the usage of this data with regards to real data. It tests I-BiDaaS MVP architecture and modules in the management and analysis of the synthetic data outside of the bank facilities and validates modules that the insights obtained are the same as the ones extracted from the real data within the bank facilities and data analytic tools. 2. Publications - During the first year of the I-BiDaaS (2018), various dissemination and communication activities executed such as scientific journals, general and business publications along with public events and conferences that aimed to enhance the public awareness and press presence of the project. 1 journal publication, 6 conference paper publications. Moreover, in 2018, I-BiDaaS was present in 22 dissemination activities in the form of conferences, workshops and other events. 3. Member of the BDVA - Four founding BDVA members of the consortium, ATOS, IBM, SAG, BSC, along with ITML, FORTH, and UNSPMF, which joined BDVA at a later stage. The main goal is to ensure that the project is aligned with PPP (Public Private Partnership) activities, such as the Strategic Research and Innovation Agenda (SRIA), ensuring the viability of the I-BiDaaS solution. I-BiDaaS is actively participating to all BDVA events since the beginning such as Bid Data PPP Steering Committee event in Belgium, Big Data Value (BDV) Meet-up in Sofia and Bulgaria, European Big Data Value Forum 2018 in Vienna, Austria. Particularly, I-BiDaaS participated at the 2nd and 3rd BDV technical committee meetings. At the 3rd meeting, the I-BiDaaS Scientific and Technical coordinator gave a short presentation on I-BiDaaS project's highlights, success stories and lessons learnt, focusing on MVP and data sharing efforts, on the processes that the project is using to collect them, and how I-BiDaaS disseminates the results. I-BiDaaS also participated at the EBDVF Vienna session "Data4AI everywhere". The session featured panel discussions on several key AI-related technologies, including views from several BDVA projects: Advanced data analytics, Hybrid AI, Distributed AI / Edge Analytics, Hardware optimized to AI, and Multi-lingual AI. We presented the current state, future directions, and the impact of the I-BiDaaS technologies in the context of advanced data analytics. 4. Collaboration activities. Following EC's approach "It is worthwhile to collaborate with others to amplify your work", I-BiDaaS is open to collaborate and support the liaison and co-operation activities with the other projects. Collaboration is a fundamental concept in terms of approaching and driving innovation. In this context, I-BiDaaS focuses on cooperating with and contributing to other related European projects. • I-BiDaaS & PrEstoCloud: Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. The PrEstoCloud – I-BiDaaS Collaboration Workshop took place on 29/10/2018. Cooperation regarding social media channels and newsletters was agreed on. • I-BiDaaS & Toreador: Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. Both projects aim to facilitate Big Data exploitation with the development of relevant frameworks. Linked with Toreador established at the BDVA meeting in Sofia (May, 14-16 of 2018) followed by an introductory telco. Cooperation regarding target joint papers was agreed on. Possible implementation of I-BiDaaS tools on Toreador's service catalogue platform for future use in case studies. I-BiDaaS Scientific and Technical Manager is an active member of the Toreador External Advisory Board. • I-BiDaaS & datAcron: Both projects occupy themselves</p>

	<p>with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. datAcron's Project coordinator is an active member of the I-BiDaaS External Advisory Board.</p>
<p>BDVe project</p>	<p>GATE Success Story: How can a best practice guide of the Network of National Big Data Value Centres of Excellence facilitate the first Big Data Centre of Excellence in Bulgaria?</p> <p>The Big Data Value Ecosystem (BDVe) project as part of the Big Data Value PPP is a Horizon 2020 project that aims to create a vibrant data-driven EU economy by supporting the development of a European Network of CoEs in Big Data, as well as the sustainability and acceleration of data-driven businesses and investments. BDVe is developing a best practice guide for Big Data CoEs to support the sharing of best practices for existing centres and to support the establishment of new CoEs such as GATE.</p> <p>To create this guide, one of the first tasks was to conduct a survey on existing CoEs in Europe, as well as their challenges, successes and strategies. We found that 21 centres belong to Western Europe, 5 to Southern Europe, 5 to Northern Europe. Therefore, it was only natural to realise that GATE is trying to achieve a very important move that aspires to strengthen the research capacity in Big Data in Eastern Europe.</p> <p>But how can a new Centre in Eastern Europe avail of the best practices of CoEs mostly in the region of Western Europe? Our best practice guide was conducted through extensive literature survey on successful CoEs and it is enhanced by detailed interviews with the key management people from successful CoEs across Europe. "Our goal is to help new centres of excellence to leverage the hard-earned experiences and best practices from Europe's leading Big Data CoEs." Dr. Edward Curry from the Insight Centre of Data Analytics who leads the activity in BDVe, noted that "The focus of our best practice guide is on the strategy, governance, structure, funding, cultural, academic/research-industry collaboration and outreach practices for Big Data CoEs, in order to create a guide that could facilitate other centres, new or old. These best practices have been shared with the GATE project in a series of workshops to support them in the creation of their new centre and us validating our guide".</p> <p>It was with great enthusiasm, when we received the news about a recent attempt to create the first dedicated Big Data Centre of Excellence (CoE) in Bulgaria that would also make it the first one in Eastern Europe, according to our findings. This project, "GATE – Big Data for Smart Society", is funded by Horizon 2020 WIDESPREAD-2016-2017 TEAMING Phase 1 programme and involves partners from Sofia University (Bulgaria), Chalmers University of Technology (Sweden) and Chalmers Industriteknik (Sweden). Their goal is to create a sustainable plan for a Big Data Centre that will be evaluated by the European Commission to be given the green light and the necessary European and National funding for the establishment of the CoE.</p> <p>This whole endeavour is received very positively from the Bulgarian government and industry, as the goal is to foster and develop a vivid data ecosystem not just within the country, but in the region as well, that will pave the way for significant scientific contributions, successful commercial collaborations with industry and high international visibility.</p> <p>With innovation pillars such as Data Driven Government (public services enhancement and efficient decision making based on Open Data), Data Driven Industry (smart factories production optimization and sustainable precision agriculture), Data Driven Society (better living through smart and sustainable cities creation, advanced health care and improved environment) and Data Driven Science (cultivating new generation data scientists), the GATE project aspires to create a centre that produces responsible research and innovation relevant to the national priority sectors and of European high standards</p>

Table 3: Success stories: details per project 2018

4.2 Value created for participation in the Big Data Value Programme

Projects were asked for the value added in participating in a larger programme and were also asked for some outcomes and success stories triggered for being part of larger programme.

80% of the projects acknowledged the value for their Research and Innovation projects of being part of a larger project. Table 4 provides details of the input provided by the projects.

The value of the programme can be summarized in the following points:

- PPP facilitating collaboration and exchanges in between projects:
 - Complementary functionalities (e.g SLIPO and QROWD) and re-use of projects outcomes (functionality, solutions or ontologies)
 - Data sharing (discussions going on in between projects working in same sector)
 - Specific know-how sharing
- PPP as a channel for dissemination and communication activities, and coordination in communication activities.
- PPP provides new opportunities created for Start-ups being part of a bigger ecosystem. It is also an exploitation channel for some projects.
- PPP offers a common framework and vocabulary (e.g reference model) helps to develop an effective ecosystem
- Participation in BDVA meetings helps to outreach other stakeholders.

Project	Outcomes and success stories of the PPP collaboration
AEGIS	Good information exchange channel
BigDataOcean	Dissemination/ Communication potential; Exchange of experience/ know-how; Capability to conduct webinars.
Data Pitch	Exposure of the programme and activities through comms channels and events such as the monthly newsletter and the EBDVF Data MarketPlace - Services for startups to create greater Impact through additional funding opportunities.
DataBio	Having projects working in complementary areas, with exchange of information in common areas, allows the creation of efficient ecosystems. Using common “vocabulary” (e.g. the BDVA Reference Model), fora (e.g. the BDV-sponsored events) and vision (e.g. the SRIA) enables a multiplication effect. In bioeconomy in particular, there are only a couple of other BDV PPP projects which also tackle it. DataBio has discussed with them possible collaboration at the technical and dissemination level but not many synergies were materialized in 2018. But, DataBio has managed to reduce its dissemination costs by promoting through BDV PPP kiosks and sponsorship in events.
e-SIDES	Great collaboration and information exchange with all BDV PPP projects
euBusinessGraph	Collaboration between euBusinessGraph and EW-Shopp and TheyBuyForYou projects.
EW-Shopp	We appreciate the joint mailing list very much and, we particularly welcome coordination on communication activities. We have also appreciated BDVA meetings where we could get an overview of other projects and innovative technologies developed therein.

FashionBrain	<p>The outcomes of project related efforts will also be presented to the Big Data Value Association (BDVA) where FashionBrain will have the opportunity to share solutions for standardisation and interoperability with policy makers and with the other BigData Value PPP members at regular meetings. The Project Coordinator, Alessandro Checco (USFD), a member of the BDVA steering committee and Mourad Khayati (UNIFR), a member of the BDVA technical committee, have attended several forums in Sofia, Bulgaria (2018) and Versailles, France (2017) to facilitate the creation of a functional Data Market and Data Economy in Europe.</p>
SLIPO	<p>Networking; commercial exploitation</p>
SPECIAL	<p>Joint dissemination via mailing lists and newsletter. Joint workshops and panels. Collaboration with other projects with overlapping goals and objectives.</p>
TT	<p>TT appreciated and very much used the opportunity to cooperate with two kinds of projects as part of the PPP. (1) Domain-specific ones, where we could exchange lessons learned and approaches for big data in transport (such as AEGIS, BigDataOcean), and (2) domain-agnostic ones, which delivered insights into methodologies and best practices (such as DataBench and e-Sides). As a point in case, e-Sides provided very important and helpful input on ethical concerns and even acted as external reviewer of one of the TT's project deliverables.</p>
QROWD	<p>The Touristic Network app built in QROWD, is designed to revolutionize winter tourism in Trentino, a province in the alpine region of Northern Italy. The app offers users an overview of how much time is needed to reach any open ski resort in Trentino. The travel time calculation considers probable delays on the route (traffic jam, incidents), regardless of where they are coming from. Additionally, information on available services and the status of ski resorts is conveyed. All this travel information helps visitors select the most optimal route option to drive to the best ski resort to meet their needs. Information on every area ski resort is collected from a variety of sources, to guarantee high-accuracy. Converging all these datasets could be problematic, for various reasons. In some cases, the same information could be contained in the various datasets. The effect is that merging the datasets could potentially cause ambiguous duplications. Additionally, dealing with a diversity of data formats may cause complications. SLIPO, another BDV PPP project remedies these situations by providing the SLIPO Workbench, a complete software suite for handling the linking and integration of Big POI (Point of Interest) data assets. The SLIPO Workbench supports the entire lifecycle of POI integration (transformation, linking, fusion, and enrichment), by transferring the data integration problem to the Linked Data domain. In this process, datasets are first transformed into RDF (via TripleGeo), interlinked (via LIMES), fused (via FAGI) and enriched (via DEER) in simple to use and cost-effective manner that delivers POI assets of increased coverage, completeness, quality, and timeliness. SLIPO Workbench reduces the effort, time, and cost to integrate POI data at a world-scale. In the context of QROWD, the SLIPO Workbench is being tested and evaluated based on its efficacy and the user-friendliness of the process. Combining the different POIs located within and around the ski resorts offers a nice challenge to SLIPO. This is because the different datasets contain a diversity of geometry (points, lines, and polygons), adding complexity to the interlinking process. This fruitful collaboration shows once again the positive impacts which can be expected from the programme, We expect this application marks the beginning of a fruitful cooperation among innovation driven initiatives such as between SLIPO and QROWD.</p>

BigDataGrapes	Initial discussions for collaboration and data sharing has started with other BDV PPP projects related to agriculture and food such as DataBio.
BigMedilytics	<p>Understand how the data processing/analysis and security frameworks are similar/different in other countries. This gives us a wider view on how to deal with the challenge of processing data and the opportunity to know first-hand the lessons learned by other partners.</p> <p>Increased networking and sharing experiences.</p> <p>Planning to collaborate with TT and Datapitch.</p>
BODYPASS	There are ongoing discussions on the possibility to share the privacy and de-anonymization control algorithms with EU Horizon 2020 BigMedilytics project.
Boost 4.0	<p>Starting to explore collaboration with Lighthouse pilot TT for connection of manufacturing processes and industry 4.0 processes.</p> <p>Boost 4.0 and DataBench will join forces to improve the impact assessment of pilots.</p> <p>Boost 4.0 will collaborate with Market4.0 to increase the impact of data-driven industry 4.0 applications as part of machine tool services and marketplaces.</p>
DataBench	Strong collaboration initially with the Hobit project (not directly part of the PPP but connection through TF6 in BDVA) and now with many of the other projects to test and benchmark their approaches
EDI	Our presence in EBDVF has allowed us to get in touch with key stakeholders of Data Economy ecosystem, e.g. new Data Providers and potential startups for the incubator that we run
I-BiDaaS	<p>Following EC's approach "It is worthwhile to collaborate with others to amplify your work", I-BiDaaS is open to collaborate and support the liaison and co-operation activities with the other projects. Collaboration is a fundamental concept in terms of approaching and driving innovation. In this context, I-BiDaaS focuses on cooperating with and contributing to other related European projects.</p> <ul style="list-style-type: none"> • I-BiDaaS & PrEstoCloud: Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. The PrEstoCloud – I-BiDaaS Collaboration Workshop took place on 29/10/2018. Cooperation regarding social media channels and newsletters was agreed on. • I-BiDaaS & Toreador: Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. Both projects aim to facilitate Big Data exploitation with the development of relevant frameworks. Linked with Toreador established at the BDVA meeting in Sofia (May 14-16 of 2018) followed by an introductory telco. Cooperation regarding target joint papers was agreed on. Possible implementation of I-BiDaaS tools on Toreador's service catalogue platform for future use in case studies. I-BiDaaS Scientific and Technical Manager is an active member of the Toreador External Advisory Board. • I-BiDaaS & datAcron: Both projects occupy themselves with Big Data and more specifically with the creation of an innovative solution for Big Data exploitation. datAcron's Project Coordinator is an active member of the I-BiDaaS External Advisory Board.

TheyBuyForYou	Synergies with PPP projects. DataBench: Joint kick-off meeting, planning of joint future activities within benchmarking of solutions. euBusinessGraph: Strong synergies between projects, TBFY incorporates and reuses the company information ontology developed in euBusinessGraph.
TYPHON	Data shared with other projects. Opportunities for dissemination to EU Big Data community.
Cross-CPP	As an outcome from EBDVF18 conference in Vienna a 2-day knowledge exchange workshop was conducted between VIF and ATB - Institute for Applied Systems Technology Bremen GmbH - in Bremen at 28.1 and 29.1.2019. VIF and ATB have met before in the Workshop Big Vehicle Data to Digital Services organized by VIF, where some common ground in research topics has been identified.

Table 4: Value created in projects and success stories for participation in the Big Data Value Programme

4.3 Success stories from BDVA Members

BDVA members have individually report their success stories linked to the participation in the BDVA and Big Data Value PPP. Benefits and successes can be summarized and grouped on the following way:

- Success stories in commercial services under the scope of the BDV PPP SRIA, which input back into the community as knowledge.
- Broaden scope of R&D capabilities and enrichment of company’s innovation portfolio as result of the participation in the PPP.

New business and collaboration opportunities as result of participation in the PPP.

Success stories in commercial services under the scope of the BDV PPP SRIA, which input back into the community as knowledge. For example: **1)** Siemens AG: MindSphere helped Calvatis to optimize resource usage and to achieve a 10 percent reduction in downtime and a six percent reduction in the use of cleaning fluid enabling them to offer additional value-added services to its customers; Calvatis chose Siemens MindSphere providing secured end-to-end solutions for connecting devices, storing data and developing and running applications on a managed service platform. **2)** Engineering Ingegneria Informatica SpA, has developed and integrated Data Value solutions in large businesses in different sectors, e.g i) DIDA (Digital Industry Data Analytics) is a platform for analysing shop floor data, developed by Engineering and tested by the FIAT Research Centre as part of the OEDIPUS project (Manufacturing); ii) Big data analytics at the service of Endesa (ENEL Group) for more precise measurements and compliancy to new legislation (Energy); iii) Engineering innovates the regulatory applications of one of the major Italian Banks (Finance); iv) Digital Enabler enhances big data value for ANTEL, the biggest telecommunications company in Uruguay (Telco); **3)** GMV PRODUCTIO (National funded project) will allow to develop a digital twin to characterize a thermosolar plant in order to extract synthetic data to perform predictive analysis based on multivariate techniques.

Broaden scope of R&D capabilities / enrichment of company innovation portfolio. For example: **1) RISE SICS** D-ICE project (a Vinnova project) as part of their BDV PPP i-Space on data-driven analysis using Hadoop clusters with two main use cases from transport and mining industries analysing 1 TB data; **2) Paluno, University of Duisburg-Essen**, has developed of novel deep learning predictive analytics solutions for proactive management of transport processes facilitated by access to real-world transport data under the umbrella of the PPP lighthouse TransformingTransport (More details: http://transformingtransport.eu/TT_NEWSL008_final-web.pdf); **3) ITI - Instituto Tecnológico de Informática** has created a new Data Hub for development of Big Data & AI experiments; **4) Grupo TRAGSA** has raised

interest from the Spanish Public Administration on results obtained by DataBio project (Large Scale Pilot) applied to fishery, forestry and agriculture; **5) Institute of Advanced Studies Kőszeg** has conducted a national health care patient journey analysis on cancer and cardiac diseases where they were able to use the learned experiences.

New business and collaboration opportunities as result of participation in the PPP. For example: **1) The MarineTraffic** anomaly detection service (powered by the BigDataOcean project) has been included in the winners (<https://buff.ly/217UdHa>) of NATO's International Defense Innovation Challenge award; **2) Paluno, University of Duisburg-Essen**, has developed of novel deep learning predictive analytics solutions for proactive management of transport processes facilitated by access to real-world transport data under the umbrella of the PPP lighthouse TransformingTransport. More details: http://transformingtransport.eu/TT_NEWSL008_final-web.pdf; **3) DECSIS**, opened up cooperation possibilities due to the BDV PPP meet-up event in Sofia (Some of the results have contributed to an Eurostars application we have submitted last February, with Turkish partners); **4) Cefriel** has had the opportunity to disseminate information about their organization during BDVA Activity Group meetings and other events; **5) Tree Technology SA** reports BDVA is helping its organisation in participating in international H2020 project and in 2018 and Tree was granted in 3 H2020-ICT projects, and 2 of them were directly related to the Big Data PPP; **6) Eindhoven University of Technology** reports BDVA meetings have helped them in 2018 to reach out efficiently to the right contacts within large organisations such as Huawei; **7) Universitat Politècnica de València** reports that the DeepHealth project (reference 825111 funded by the H2020 call ICT-11a 2018) is a result of internal BDVA collaboration (proposal presented in an AG of the BDVA and most of partners of DeepHealth are members of the BDVA who joined to the proposal thanks to the networking during AG meetings); **8) Huawei Technologies Düsseldorf GmbH** reports on the benefits of its participation in the EU funded project BigMedilytics where a significant number of members of the BDVA PPP is involved; **9) Cineca** obtained the gold i-Space label from BDVA in 2018 and this is by far our most successful story concerning the Big Data PPP and the involvement with the HPC-BD subgroup and the networking opportunities arose from the participation to the BDVA activities in general, fostered Cineca collaboration in two successful proposals during 2018, AI4EU and CYBELE, the latter being a PPP project started in January 2019; **10) Fraunhofer-Gesellschaft** reports that due to exposure in BDVA activities they have increased involvement in consortia (across multiple Fraunhofer institutes) targeting national and European calls for proposals, they have got recognitions in some topics and they broaden and strengthen networks with other leaders in the field, and complementary technology area leaders; **11) ATC** has secured a contract with a large international pharmaceutical company for developing a data sharing platform; **12) IBM Haifa Research Lab**, one of themes we pursued as part of BDVA and the H2020 projects is Blockchain for Data Economy. Recently we signed several big deals with external clients based on the Blockchain technology developed for EU; **13) Maxfonersrl** reported that in its first year at BDVA they had the opportunity to present their company to the BDVA community and met other interesting companies working in our same business sector; **14) Fundación CARTIF** reports that the European Commission's Innovation Radar has identified CARTIF with the development of two innovations related with the BDVA PPP project TT (details below); **15) GMV**: Participation in Typhon project (TYPHON is an on-going project which will provide an industry-validated methodology and integrated technical offering for designing, developing, querying, evolving, analysing and monitoring scalable hybrid data persistence architectures)

5 BDV PPP MEET-UP SOFIA 2018

Report provided by the BDVe project (BDV PPP main CSA)

Executive summary

The first Big Data Value Meetup, a 3 days event organized in Sofia (Bulgaria) in May 2018 by the Big Data Value Association, BDVe project and Mozaika, gathered the European Big Data community to discuss and exchange thoughts, ideas and insights about the present and the future of the data driven economy.

The event has been an excellent opportunity to strengthen the collaboration between the different stakeholders within the Big Data Value Public Private Partnership, but also to contact and engage new relevant actors in Central & East Europe and, more specifically, in Bulgaria.

During the first two days of the event, different parallel workshops tackled important aspects around big data and artificial intelligence (GDPR, data sharing, business impact of AI, skills on data sciences, etc ...).

The third day, open to actors outside the BDV PPP, involved keynote speeches from representatives of Bulgarian government and the European Commission, and panels to foster the discussion between relevant actors from industry, SMEs, academia and research. Special mention deserves the welcoming video of the commissioner Mariya Gabriel stating great European ambitions for Artificial Intelligence and Big Data in Europe. The activities during this day also included an exhibition area where the exhibitors had the opportunity to promote and present to the visitors their organizations and projects.

In summary, with more than 100 people attending the event, 15 workshops, 5 keynotes, 20 speakers, 3 panels and 10 exhibitors, and based on spontaneous feedback from participants, we believe that the event has fulfilled the expectations of most of the attendants, who can provide us feedback about their experience via an on-line survey. Therefore, our intention is to repeat the experience next year with a new edition of this meetup-event, working on improving its format and strengthening its positive aspects. We will keep you informed, stay tuned!!!!



Organization Committee

- Mariana Damova (CEO Mozaika)
- Ana García Robles (Secretary General BDVA)
- Laure Le Bars (President of BDVA, SAP)
- Jean-Christophe Pazzaglia (BDVe Project Manager, SAP)
- Nuria De Lama (Vice-Secretary General, ATOS)
- Daniel Alonso (BDVe Project, ITI)

Introduction

The first edition of the Big Data Value Meet-up has taken place in Sofia (Bulgaria), from 14th to 16th of May 2018. The event, jointly organized by the Big Data Value Association (BDVA), the BDVe project and Mozaika, as local organizer, has been held in the Inter Expo Center, an exhibition and congress centre located 7 km from Sofia city centre.

The event has been divided in two clearly differentiated parts.

The first two days has been dedicated to the big data community around the BDV Public Private Partnership: BDVA members, European Commission and PPP projects, to exchange ideas about crucial aspects on Big Data Value, and to discuss the objectives and challenges we are facing in the upcoming years in the data driven economy, as well as the potential of Big Data Value and AI to disrupt markets and business models.

Parallel workshops and sessions have been jointly organized by BDVA task forces and PPP projects during those two days²³, in the rooms Musala, Vihren and Ruen. The following topics have been addressed:

- How to tackle the impact of **GDPR regulation**
- **Data sharing** and data management plan recommendations
- Data technology solutions to preserve **privacy and security**
- Steps and actions towards an **European federation of Data spaces**
- **Software approaches** for managing Big Data
- Data application for **transport in urban scenarios**
- Implementation of data-driven approaches in the **manufacturing domain**: from Big Data to big challenges
- Fairness, accountability, transparency and ethics (**F.A.T.E.**) of Artificial Intelligence
- **Success patterns of Data-driven business opportunities**



²³ The complete agenda is provided in later sections

- Leveraging the *human factor* in the BDV chain



There has also been the opportunity to organize meetings of the Steering Committee and Technical Committee of the Big Data Value PPP, as well as the General Assembly of BDVA.

During these two days, lunch and coffee breaks offered in the room Panorama, in the 7th floor of the IEC, with incredible views of Sofia surrounding mountains, have given the attendants the opportunity to network and strengthen collaborations.

The objective of the third day (May 16th) has been to enlarge the ecosystem with new actors coming from East Europe in general and Bulgaria in particular. This open day, organized in the Vitosha hall, has featured keynote speeches from relevant representatives of the Bulgarian government, of the European Commission and from the data industry, followed by sessions where panelists shared their point of views on the data economy²⁴.

Mariya Gabriel, Commissioner for Digital Economy and Society of the EC, has welcomed the participants in a video message, encouraging and showing her support to the development of Big Data and AI in Europe. The video is available online [here](#) and the English translation of the speech can be found [here](#). Besides, Ognian Zlatev, Head of EC Representation in Bulgaria, has endorsed the event with a written address.



Profesor Ivan Dimov, Deputy Minister of Education of Bulgaria, and Totka Chernaeva, Head of Unit “European programmes and projects” from the Bulgarian Ministry of Transport, ITI and Communications, have provided opening keynote speeches. Ana

²⁴ The complete agenda is provided in later sections



Garcia Robles, Secretary General of BDVA, has given an overview of the Big Data Value PPP and its impact in the European Data economy.

During the day, three panels have given the opportunity to speakers to discuss about the following topics:

- How big data is enabling the digital transformation.
- Existing capacities, initiatives and excellence in the data economy.
- Different solutions and approaches for data sharing.



Main findings and conclusions of the BDV PPP Meet-up have been summarized by Jean Christophe Pazzaglia, project manager of BDVe, and Mariana Damova, CEO of Mozaika, who, together with her staff, have got an acclamation from the audience for their efforts and enthusiasm in organizing the event.

BDV PPP Meetup 14-15th May

MAY 14TH 2018

	ROOM MUSALA	ROOM VIHREN	ROOM RUEN
14:00	PLENARY - Welcome & The Bulgaria experiment - Using BDVe Assets - Marketplace and Skills - BDV PPP Status		
15:00	How to tackle GDPR within the innovation lifecycle?	Data Sharing, Data Set and associated Business Model	
16:30	COFFEE BREAK		
17:00	Technology Solutions for Privacy Issues - What is the best way forward?	Towards a Federation of European Data Spaces	Software approaches for managing Big Data
18:30	Data Skills and Education: Mobility Programme and Educational Hub		
19:15	NETWORKING EVENT		
21:00			

MAY 15TH 2018

	ROOM MUSALA	ROOM VIHREN	ROOM RUEN
9:00	WELCOME COFFEE		
9:30	Transport in Urban Scenarios	Smart Manufacturing	Data Benchmarking
11:00	COFFEE BREAK		
11:30	Success Patterns of Data-driven Business Opportunities	The Fate of AI	Big Data Research/Innovation projects, Standards and Market (incl. TF6)
13:00	LUNCH		
14:15	Open Call for Contributions (Pitches)	PPP Steering Committee - Members Only -	PPP Technical Committee - Members Only -
15:45	COFFEE BREAK		
16:00	BDVA General Assembly - Members Only -	Leveraging the Human Factor in the BDV Chain	
17:45	END OF DAY 2 MEETUP IN SOFIA DOWNTOWN (PLACE TBC)		

BDV Meetup Open day 16th May

09:00-09:10 | WELCOME

Laure Le Bars (President of BDVA)
Mariana Damova (CEO of Mozaika, NCP ICT)

09:10-09:45 | OPENING KEYNOTES

RESEARCH, INNOVATION AND POLICY CHALLENGES OF THE DATA ECONOMY IN EUROPE

- Prof. Ivan Dimov, Deputy Minister of Education, Bulgarian Ministry of Education
- Mariya Gabriel, Commissioner for Digital Economy and Society, EC (Video-message)
- Ognian Zlatev, Head of EC Representation in Bulgaria (Written endorsement of the event)
- Overview of the Big Data Value Public-Private-Partnership and its activities- Ana García Robles (Secretary General of BDVA)
- Digital Bulgaria 2025 - Totka Chernaeva (Head of unit "European programmes and projects" - Directorate IT - Ministry of Transport, IT and Communications)

09:45-10:00 | INSPIRATIONAL SPEECH

THE EUROPEAN CHALLENGE: CAPTURING THE VALUE OF DATA

- Gabriella Cattaneo (Associate Vice President IDC European Government Consulting)

10:00-11:00 | SESSION I

BIG DATA-ENABLED DIGITAL TRANSFORMATION: EXAMPLES OF BUSINESS IMPACT

- Panel on "Big data-enabled digital Transformation".
Moderator: Sonja Zillner (Senior key Expert in Corporate technology Siemens).
Representatives of different industrial sectors in Europe (including Logistics, bio-economy, manufacturing, health or pharma) will share their experiences in the deployment of big data solutions in varied business environments. The panel will provide insights on existing solutions, opportunities and challenges, as well as concrete ROI examples.
- Speakers
 - Rodrigo Castiñeira (INDRA; coordinator of Transforming Transport, lighthouse project on Transport and logistics)
 - Athanasios Poulakidas (Intrasoft; coordinator of DataBio, lighthouse project on Bioeconomy)
 - Óscar Lázaro (Innovalia; Managing Director; coordinator of BOOST 4.0 lighthouse project on Manufacturing)
 - Supriyo Chatterjea (Philips; coordinator of BigMedilytics, lighthouse project on Health) TBC
 - Rosen Dimitrov (Novartis Bulgaria; EOOD, Public Affairs Manager, Head of Bulgarian operations)
 - Milen Chechev (Ocado, Data Science Team Lead)

Presentation of the BDVA position paper "Big Data Challenges in Smart Manufacturing" – Davide Dalle Carbonare (BDVA TF7-SMI)

11:00-11:30 | Coffee break

11:30-12:00

BIG DATA IMPLEMENTATION STATUS AND FUNDING OPPORTUNITIES

- Francesco Barbato (European Commission)

12:00-13:00 | SESSION II

BUILDING BIG DATA CAPACITIES IN THE EU: SKILLS, ENTREPRENEURSHIP AND EXCELLENCE IN THE DATA ECONOMY

- Panel on “Towards Digital Innovation Hubs In Big Data: existing capacities and initiatives to build upon”.
Moderator: **Edward Curry** (Vice-president of BDVA, Insight).
Representatives of relevant initiatives such as Centers of Excellence in Big Data, Data Innovation Spaces, Incubators and national initiatives will share their views about current practices and outcomes as well as the existing gaps to realize a full Data economy in the EU.
- **Speakers**
 - Sylvia Ilieva (Center of Excellence GATE)
 - Sergi Sergiev (Data Science Society)
 - Pavel Genevsky (SAP Labs Bulgaria)
 - Nhung Ngo (SDIL)
 - Roberta Piscitelli (EGI, BDVA Vice-chair of the i-Space group)
 - Davide Dalle Carbonare (EDI project)

13:00-14:00 | Lunch

14:00-14:30 | KEYNOTE SPEAKER

DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE

- Dominique Grelet (Atos Group Vice-President, Heading up the Atos Codex proposition, Analytics, AI and IoT)

14:30-15:30 | SESSION III

DATA SHARING: A VIEW ON DIFFERENT SOLUTIONS AND APPROACHES

- Panel on “How to handle data (for data owners and users)”.
Moderator: **Nuria De Lama** (BDVA Vice-Secretary General, ATOS).
This panel will count on **representatives of major worldwide initiatives** aiming to provide securing means to share and use data. We will get a view on different approaches and in which contexts they can be more useful with a focus on promoting data sharing between companies. If you want to learn about Industrial Data Space, the Ocean Protocol, data sharing practices in the EU, or solutions for data integration developed in the Big data Value PPP, you should not miss this session.
- **Speakers**
 - **Thorsten Huelsmann** (Industrial Data Space Association; Director Finance and Internationalisation)
 - **Irene López de Vallejo** (DEX Europe Limited | Contributor to Ocean Protocol; Director of Partnerships and Business Development)
 - **Marta Pont** (Everis Belgium, EU Business Consultant)
 - **Filip Genov** (UniCreditBulBank, First Vice President, Head of Special Projects)

15:30-15:55

MAIN FINDINGS AND CONCLUSIONS FROM THE PPP MEET-UP

- Short report from Big Data sessions held by projects and BDVA Task Forces
- **Jean Christophe Pazzaglia** (BDVe project, SAP)

15:55-16:00 | OFFICIAL CLOSING

- **Laure Le Bars** (President of BDVA)
- **Marlana Damova** (CEO of Mozaika, NCP ICT)

Exhibitors

- Mozaika (<http://www.mozajka.co/>)
- RISE SICS (www.sics.se)
- Institute of Information and Communication Technologies, Bulgarian Academy of Sc (<http://www.iict.bas.bg>)
- Intrasoft International (<https://www.intrasoft-intl.com/>), representing TransformingTransport project (<https://transformingtransport.eu/>)
- Ciaotech (<https://www.pnoconsultants.com/it/>), representing DataBio project (<https://www.databio.eu/>)
- Universidad Politécnica de Madrid (<http://www.upm.es/>), representing Lynx project (<http://lynx-project.eu/>).
- Human in the Loop (<http://humanintheloop.bg/>)
- BDV PPP (<http://www.big-data-value.eu/>).

Local sponsor



Thank you e-mail

Dear colleague,

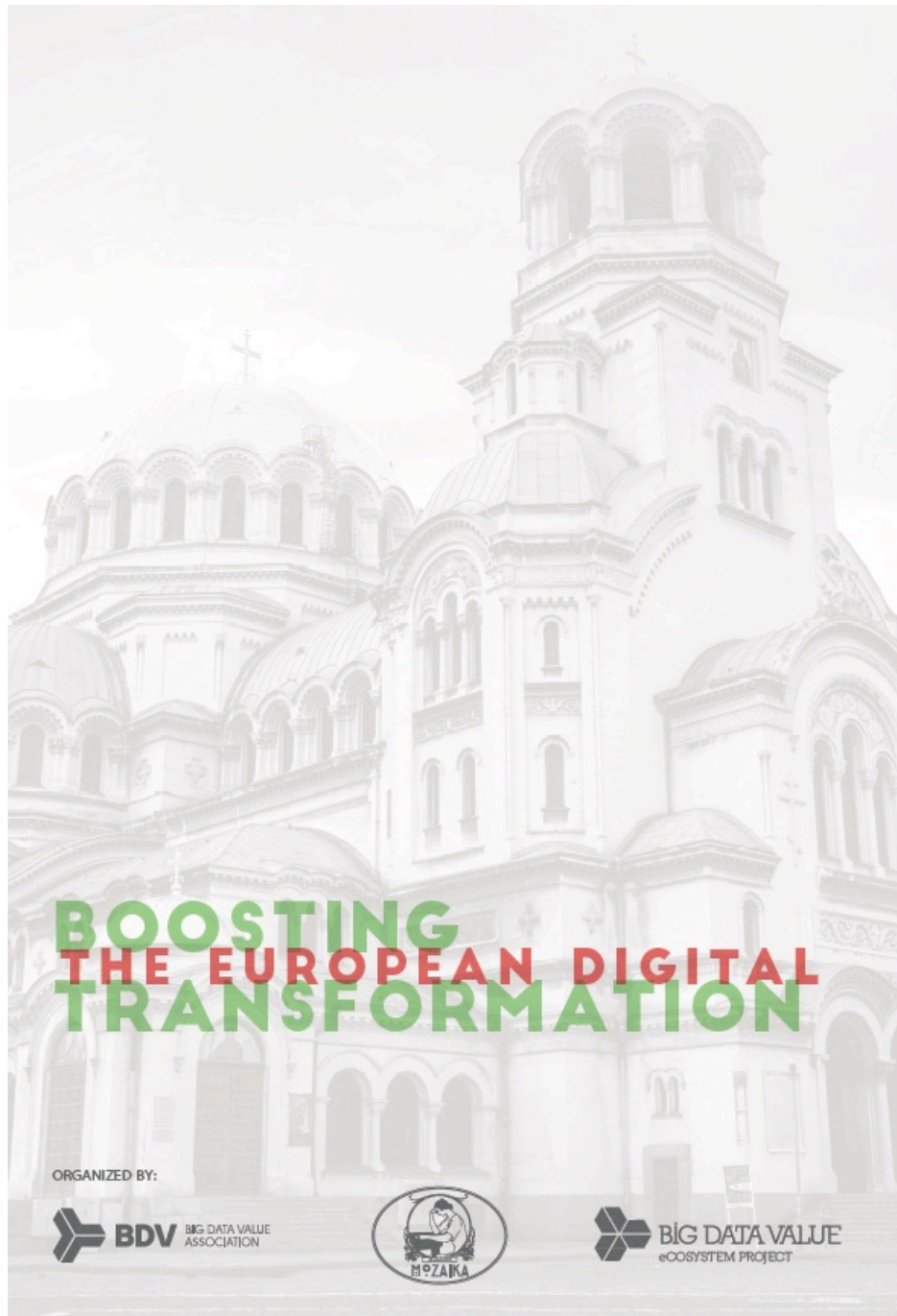
On behalf of the organizers of the BDV Meetup Sofia 2018, we would like to thank you for your participation in the event, and for your contribution to make of this a great success.

We have organized the event with the twofold objective of strengthen the collaboration among community members, and to engage new actors from East Europe and Bulgaria. We hope that the set of workshops, keynotes, sessions and other activities have fulfilled your expectations. In order to help us to improve future editions of the Meetup, we encourage you to complete [this survey](#) where you can provide us feedback on the most significant aspects of the event.

We also let you know that pictures about the event will be published soon in the [Flickr group](#) for the BDV. Moreover, the presentations corresponding to the sessions of the open day (16th May) will be also available on the [web site of the BDV PPP](#).

Finally, we would like to remind you of the following big event that the European Big Data community is organizing: the [European Big Data Value Forum 2018](#), to be held in Vienna from 12 to 14 of November. It will be a new opportunity to see you again, and discuss about the challenges and opportunities of the European data economy and data-driven innovation in Europe.

Again, thanks a lot for your support and contribution, and see you in Vienna!!!



6 EUROPEAN BIG DATA VALUE FORUM 2018 (EBDVF 2018)

(Note: Report provided by the BDVe project, BDV PPP CSA)

The *Big Data Value Association* has co-organized, together with the European Commission and the Austrian Presidency of the Council of the European Union, the *European Big Data Value Forum 2018 (EBDVF18)*, an event that has brought together more than **600 industry professionals, business developers, researchers, and policy makers from 40 different countries**, around the challenges and opportunities of the data-driven and AI based innovation in Europe.

The event has taken place in Vienna from 12-14th November and has been structured in two first days of keynotes and parallel sessions at the Austria Centre Vienna, and a third day of workshops organized by the Big Data Value Association at the Siemens AG Centre.



The *BDVA has contributed actively to the success* of this edition of the EBDVF18, being part of the chair committee, the steering committee, the programme committee, and the communication group. Besides, the BDVA (together with BDVe project) has been Diamond Sponsor of the event and has been present in the Big Data Value PPP Village, the exhibition space of the BDV PPP at the conference main hall.

For the Big Data Value Association, the event has contributed *to achieve a three-fold objective*: the association has increased its *visibility and consolidated as a key player* in fostering the data-driven and AI based innovation in Europe, has been able to attract *new actors and engage new members*, and has *reinforced the strategic pillars* towards its position in the FP9 program.





As a relevant example, the BDVA has made public during the event its position statement on Artificial Intelligence: “*Data-driven Artificial Intelligence for European Economic Competitiveness and Societal Progress*” (<http://bdva.eu/sites/default/files/AI-Position-Statement-BDVA-Final-12112018.pdf>), which expresses the view of the association on data-driven AI opportunities, challenges and recommendations.

The association has also organized the *awards ceremony to the BDVA i-Spaces* recognized in 2018 (<http://bdva.eu/node/1135>), existing European data innovation spaces that have demonstrated a high quality level of infrastructures, services, projects, impact and business sustainability. Additionally, on the 3rd day of the event these BDVA i-Spaces have organized a workshop in order to start working on the establishment of a European network of initiatives around Big Data innovation. Key aspects in the strategy of the BDVA addressed on the workshops of November 14th have been, among others, the connection of *Data Platforms towards an integrated European Data Ecosystem, Industrial Cooperation for AI*, and data ecosystems at *national level*.



From BDVA, we want to thank the European Commission, the Austrian Presidency of the Council of the European Union and the rest of the organizers, the speakers and participants in panel and sessions, the sponsors and the Big Data and AI community who attended the event for their great support and contribution in making a big success of this event. We look forward to **seeing you all in Finland next year!**

Official presidency pictures from the event are on Flickr (these pictures can be used with the appropriate copyright notice):

<https://www.flickr.com/photos/eu2018at/sets/72157700262833402>

Other pictures (to be used with copyright notice):

- <https://www.flickr.com/gp/137542734@N07/2V10qZ>
- <https://flic.kr/s/aHskJ8teo2>
- <https://flic.kr/s/aHsmvRLhkl>

Recorded livestream:

- <https://vimeo.com/300261948>
- <https://vimeo.com/300285873>
- <https://vimeo.com/300310482>
- <https://vimeo.com/300337123>
- <https://vimeo.com/300468734>
- <https://vimeo.com/300486669>
- <https://vimeo.com/300530608>

- <https://vimeo.com/300539216>
- On the EBDVF2018 website, you can also find some more video material from the session that were not livestreamed: <https://www.european-big-data-value-forum.eu/>





www.bdva.eu